# Esperie

December 2019

# PORTFOLIO

Travel planning app
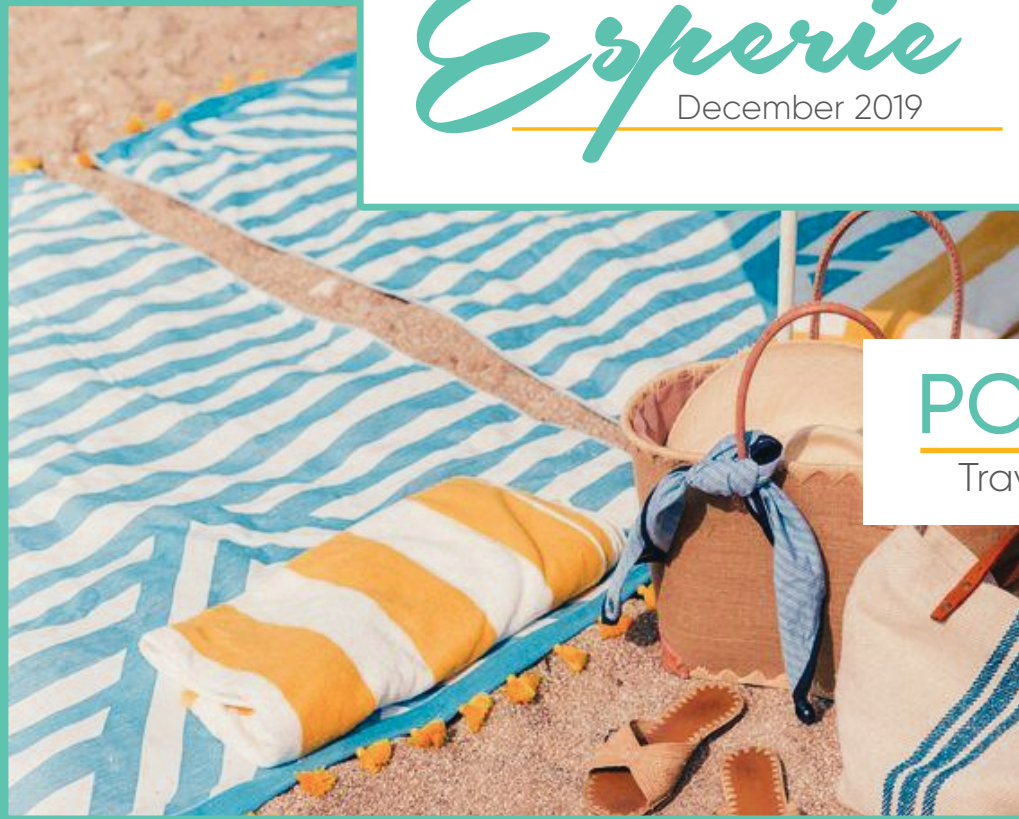
Esperie- Travel Planning App

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# 1.1

## Problem definition

### 1.1.2. Problem Abstraction

Vietnam's period in the previous years, the Vietnamese travel industry is on traditional travel trips, these recent years, the travel trends grew in new directions. Travel is always one of the topics that people care about and love today, especially for young people. In recent years, tourists tend to be looking to more dynamic experiences during their travels in order to achieve new, unusual, unique feelings of their own. From there, tourists also moved to gradually the tourism trend is more self-sufficient and personal.

### 1.1.1. Name of this capstone project

Esperie- Travel planning app- An assistant to accompany with you on the journey of exciting experiences to discover together part of the culture, country and people of Vietnam. With the desire to bring more known Vietnamese culture, Esperie wants to bridge the connection of people with Vietnamese lands closer together, creating a local travel experience and discovering the culinary culture here with ease.

In addition, people travel to discover new cultures, experience activities in everyday life, enjoy delicious food, mount friends when going to new land. According to Mr. Marcus Yong-Director of Southeast Asia of Klook (one of the world's largest travel services platforms), the self-sufficient tourist growth is an indispensable trend in the context of low-cost aviation for users with more choice. Economic development makes domestic and foreign tourism a popular and easy way. Besides finding and ordering services on mobile is more and more easy, convenient. So many travelers choose to go self-sufficient, individually scheduling themselves instead of going to the tour schedule available. According to Klook statistics, 49% of their customers are 25-34 years old, children from 18 years old constitute 36%.

Today, thanks to the development of the technological era, although tourists have many choices for themselves the services needed to serve the trip: Booking air tickets, hotels, dining, entertainment,... On online sites or travel apps to serve to your trips. However, there are many limitations that online services can meet, support for self-organized travels that can achieve a satisfying experience in localities.

# 1.2

## Project overview

### 1.2.1. Define The Problem

Self-travel trends have a tendency to increase in recent years, so travel applications appear to support the needs of tourists. But for now, the applications mainly provide information about the services of air tickets, hotels, meals, attractions or some tours so that users can choose. Aside from that, a few other apps that help tourists can schedule themselves for their travels, but seem inadequate. According to self-sufficient trend lines and individuals, guests need to prepare carefully and more thoroughly for their journey. So they need an app that helps them to make a detailed schedule, providing as much information as possible so that the trip achieves easier and more enjoyable.

Tourism is now standing in the ranks of one of the largest economic sectors in the world. Tourism became one of the main pillars of international trade, is a key source of income for many developing countries. Tourism is the second fastest growing industry in 2018, just behind the production, up 4.0%.

# 1.3

## *Research*

### 1.3.1. Market research

In this section, we have researched the tourism market, local and international tourism. Through many studies and research, we recognize the main points of market trends and tourism.

Asia-Pacific is the strongest development area on GDP tourism in 2018. The direct contribution of Travel & Tourism to GDP in 2018 was USD2,750.7bn (3.2% of GDP). This is forecast to rise by 3.6% to USD 2,849.2bn in 2019. The direct contribution of Travel & Tourism to GDP is expected to grow by 3.6% to USD4,065.0bn (3.5% of GDP) by 2029.

WORLD: DIRECT CONTRIBUTION OF TRAVEL & TOURISM TO GDP

% OF WHOLE ECONOMY GDP



CONSTANT 2018 USDBN
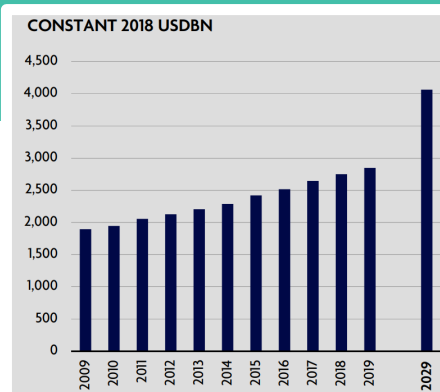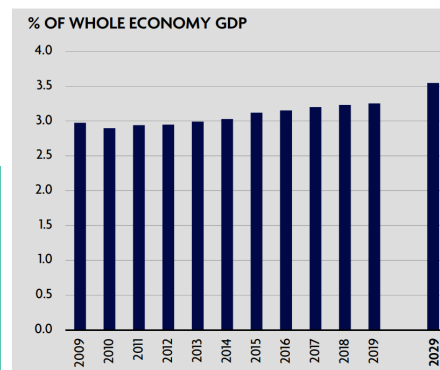


In its annual analysis quantifying the global economic and employment impact of Travel & Tourism in 185 countries and 25 regions, the World Travel & Tourism Council's (WTTC) research reveals that the sector accounted for 10.4% of global GDP and 319 million jobs, or 10% of total employment in 2018. The division of overall spend is firmly weighted towards the leisure market, which represented 78.5% of the total compared with 21.5% for business spend, and the sector accounted for 6.5% of total global exports and 27.2% of total global service exports. Domestic tourism, which represented 71.2% of all tourism spending in 2018 and had the strongest growth in developing nations.

*https://www.wttc.org/-/media/files/reports/economic-impact-research/regions-2019/world2019.pdf*

## Travel Trend

**Staycation**- Travel trends in place for busy young people. A holiday in your hometown, no need abroad, or spend time at home and there are short trips to the area's attractions. The weekend, the family chose the resort near the city, spent time together and joined interesting activities.

*https://socialnomics.net/2019/03/08/uk-staycation-travel-trends-2019/*
*https://dulichvietnam.com.vn/staycation-xu-huong-du-lich-tai-cho-cho-nguoi-tre-ban-ron.html*
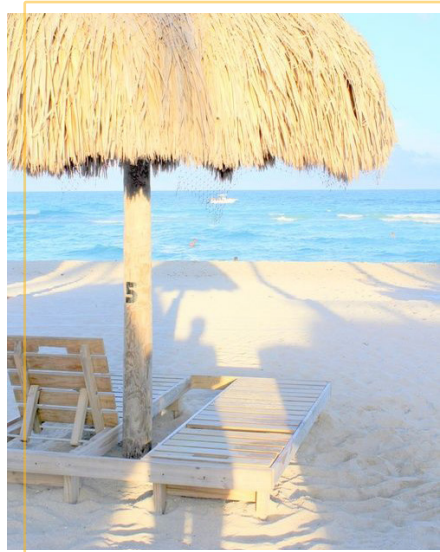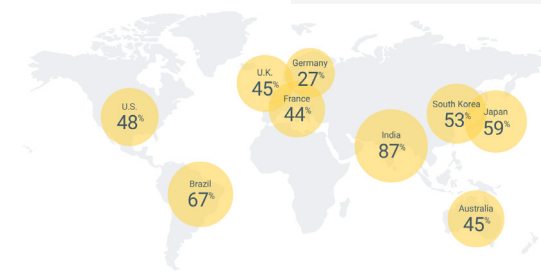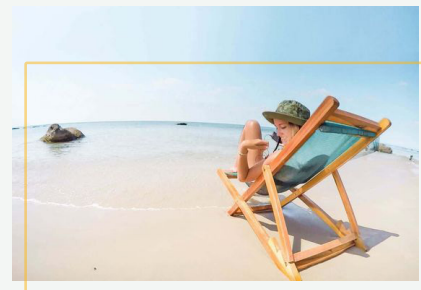
**Self-Guided Travel** - The self-sufficient travel trends become popular quickly as tourists increasingly enjoy self-serving. According to KPS, more than 91% of travel agent customers would use a self-service knowledge base, provided it met their needs. The data shows people want to manage their trip after they've made a booking without contacting customer support.

*https://pro.regiondo.com/travel-industry-trends/*

**Solo Travel** - Solo travel as a global trend continues to grow. Making up around 18% of global bookings, solo travel is becoming ever more popular and has increased by 7% in the last year alone. Solo travelers typically take longer trips than the other traveler personas at approximately 19 days on average.

*https://www.phocuswire.com/Travel-booking-behavior-data-signals*
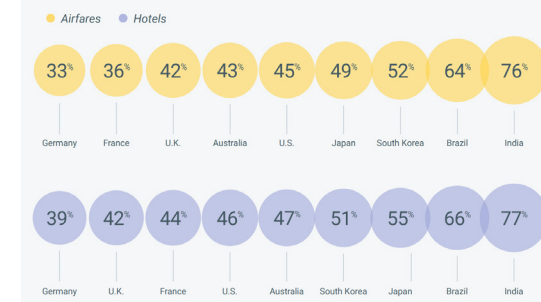*https://www.trekksoft.com/en/blog/65-travel-tourism-statistics-for-2019*

Percentage of smartphone users who are comfortable researching, booking, and planning their entire trip to a new travel destination using only a mobile device.
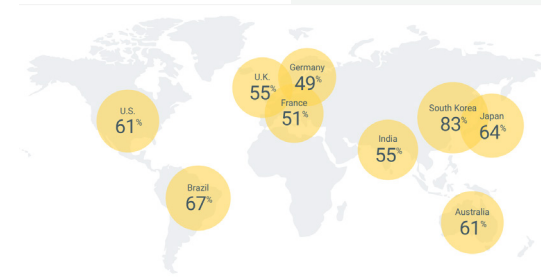
Percentage of smartphone users who consider researching hotels and airfares on their mobile devices to be easy.

● Airfares   ● Hotels

| Germany | France | U.K. | Australia | U.S. | Japan | South Korea | Brazil | India |
|---------|--------|------|-----------|------|-------|-------------|--------|-------|
| 33% | 36% | 42% | 43% | 45% | 49% | 52% | 64% | 76% |

| Germany | U.K. | France | U.S. | Australia | South Korea | Japan | Brazil | India |
|---------|------|--------|------|-----------|-------------|-------|--------|-------|
| 39% | 42% | 44% | 46% | 47% | 51% | 55% | 66% | 77% |

Percentage of smartphone users who use their mobile devices to seek directions

## How smartphones influence the entire travel journey

Asia and Africa lead the way in terms of mobile usage as a percentage of total web traffic, while the rest of the world is at a minimum of 30%. In addition, Google reports that more than 31% of leisure travelers have booked travel using a smartphone compared to 53% of business travelers.When looking at the tours and activities industry, our internal data also shows a steady increase over the last 3 years when it comes to the share of mobile bookings.

*file:///C:/Users/KhanhVy/Desktop/Capstone%20project/1171-How-Smartphones-Influence-the-Journey-Download.pdf*
*https://pro.regiondo.com/travel-industry-trends/*

Of the 14 pillars, natural resources (rank 34) and Vietnam Cultural and service tourism resources (ranked 30) are considered to be the most positive.

With the trend of strong economic development as well as current income, Vietnam Tourism has developed further, towards the completion of the target deadline for 2020 "Attracting 17-20 million international tourists, 82 million domestic tourists, contributing over 10% of GDP, total revenue from tourists reached 35 billion, export value through tourism reached $20 billion, generating 4 million jobs , including 1.6 million direct jobs "(Central resolution 08-NQ/TW on 16/1/2017 on tourism development became the spearhead economy).

## The impact of world tourism on Vietnam 's tourism

According to the World Economic Forum's review WEF, Vietnam currently ranks 67/136 economies of competitiveness in tourism, ranked 5th in the ASEAN.

## Trends, current situation of the user:

According to the tourism department, in the first 9 months of 2019, international visitors to Hanoi is estimated at over 4.7 million, up 10.1% over the same period last year. In Ho Chi Minh City, in the first 6 months, total arrivals to the city is estimated at 17 million, of which approximately 4.2 million international tourists, up 10.1% over the same period, domestic passenger about 12.8 million people. Da Nang city welcomed over 4.3 million visitors reaching 53.8% of the plan, up 15.1% over the same period last year.

Derived from the general trend of world tourism is thriving tourism market retail individual travel, group travel excluded.

Department of Statistics and the Tourism Department of Ho Chi Minh city showed tourism trends freedom, self-organized tour own way tourists are increasing. Survey companies travel shows, some customers buying package tours are still many, but the number of buyers of retail services (tours at destinations) have tended to increase. Compared with the trend traditional travel, persona l travel, self-sufficient or experience guide participants to actively explore, choose and decide all the products and services used during the trip mine. Participants often demand towards personal experiences.

*http://www.vnmedia.vn/du-lich/201901/nganh-du-lich-lu-hanh-viet-nam-nhin-lai-nam-cu-va-du-bao-tuong-lai-623850/*
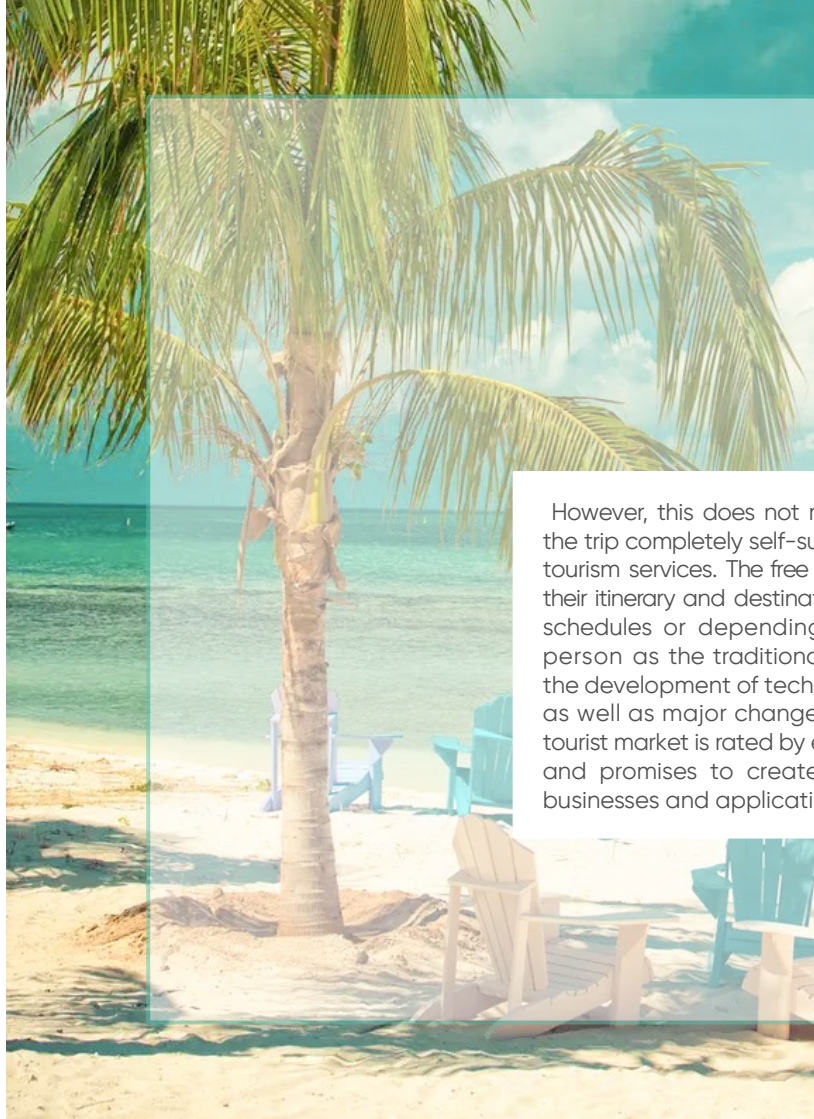
However, this does not mean that individual tourists only make the trip completely self-sufficient and ignore the use of travel and tourism services. The free travel trend allows guests to freely choose their itinerary and destination without being bound by extended schedules or depending on the time of the accompanying person as the traditional form of travel tour. Accompanied by the development of technological and informational platforms as well as major changes in current consumer trends, the free tourist market is rated by experts who will thrive in the coming years and promises to create Potential business opportunities for businesses and application developers.

### The rise of single travelers (including business travelers)

In 2018, Solo Traveler organized together with Just You to conduct surveys from 1118 people who have traveled personally to find the differences from individual travel compared to other types of travel. The survey results show that the main motivation for individual travel participants is growing largely from the pressure of life. They tend to choose to travel alone to take a break from the stresses and discover cultural differences at the destination.
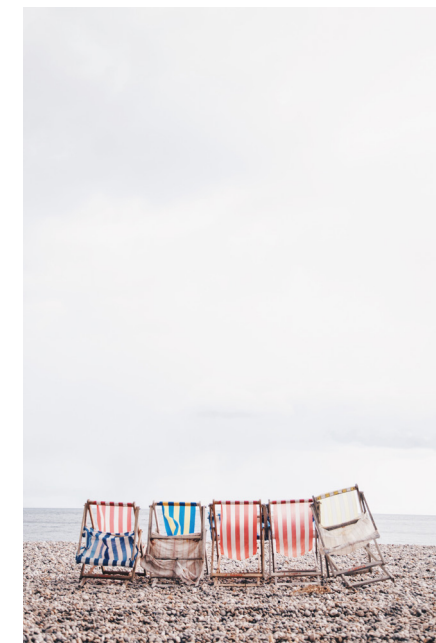
Besides, private travellers spend a lot of time using their phone, laptop or tablet to serve more trips than any other travel trends. Hence, it is possible to see them heavily dependent on technology when engaged in personal tourism.

The rushing appearance of tourism platforms specializes in serving personal tourist market such as Klook, Fayfay,... In Vietnam over the past few years show signs of growing personal tourism trends is the basis. According to Klook – the booking platform for travel services at its own destination in Asian markets the number of individual tourists has increased on their platform from 31% to 38% in 2018. Vietnam and Thailand are located in the group of countries attracting this group of tourists.

**Personalization — the biggest priority among the modern travel industry trends**

To date, almost 90% of travelers worldwide admit that standard traveling process is not enough any longer. A personalized approach is now viewed more as an expectation than something extraordinary. People value the unique experience they can get, while on the go, no matter if it's a holiday or a business trip. In fact, personalization has become the first priority among the modern trends in travel and tourism industry. Tourists, especially those who seek suitable trips, want to be flexible but comfortable. They want top service and a host of amenities but also enjoy the feeling of home. Internet plays a more important role in travel now. Tourists are inclined to enjoy self-study locations, activities, airfares, routes and journeys for their travels. With compelling content, resources, text and images, Internet search engines can spark tourists's imagination on places they've never thought of.

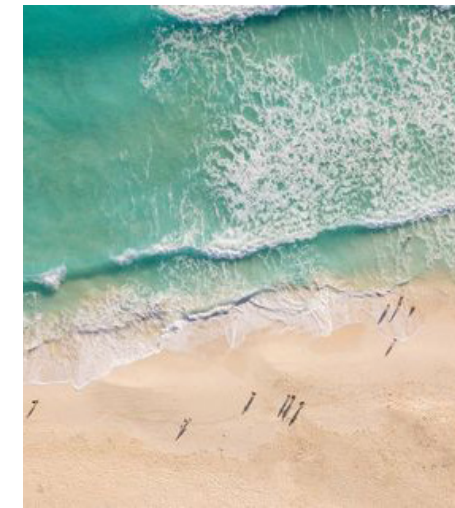*https://medium.com/swlh/top-10-travel-indus-try-trends-in-2019-d43d157de7b9*
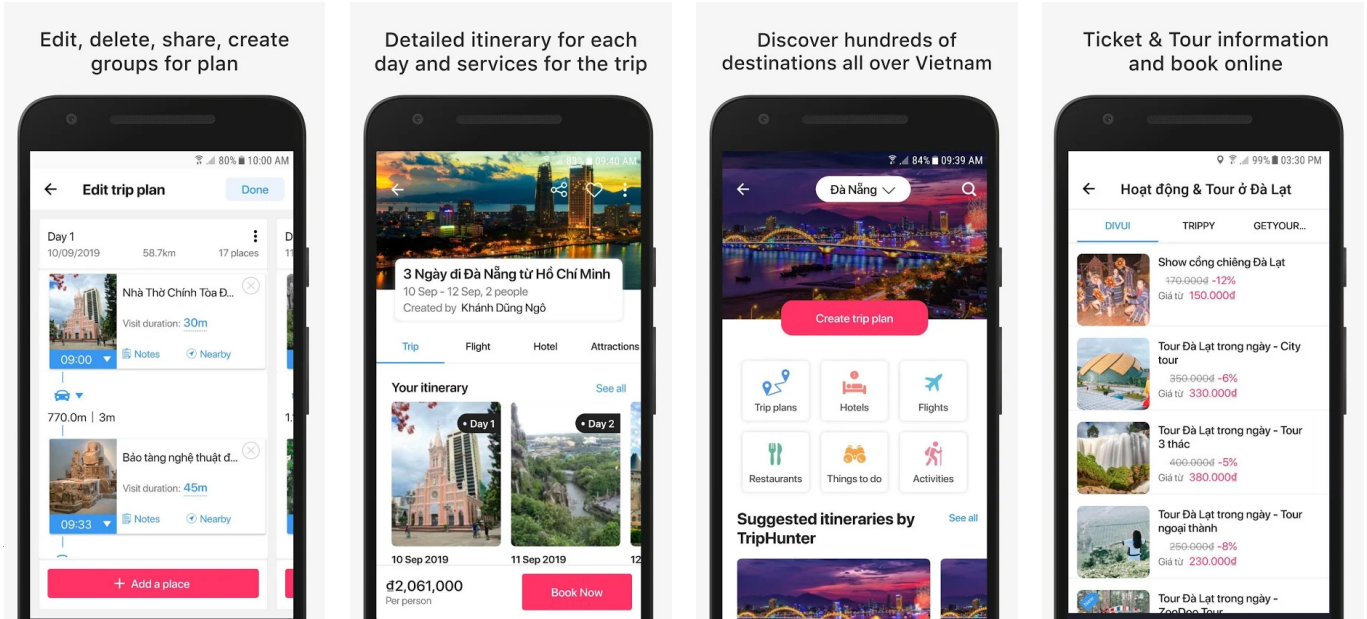
### 1.3.2. Competitor Research

In this section, we have researched the tourism market, local and international tourism. Through many research, we recognize the main points of market trends and tourism.

**TripHunter**

TripHunter is an application that helps tourists to make smart and convenient travel schedules. Users can find destination information, find airfares, hotels, tours/activities and book tickets online.

| Edit, delete, share, create groups for plan | Detailed itinerary for each day and services for the trip | Discover hundreds of destinations all over Vietnam | Ticket & Tour information and book online |
| --- | --- | --- | --- |



|  | PROS | CONS |
| --- | --- | --- |
| **User friendly** | -The only application supports the creation schedule of Vietnam.<br>-Can openly schedule so that users can refer to each other.<br>-Help users can schedule automatically and be editable.<br>-Calculate the total price of a trip for the user. | -Some redundant parts don't understand the purpose.<br>-No foreign language support.<br>-Do not recommend transportation for users to choose.<br>-The hotel section, where dining is not included in the itinerary, only arranges attractions and entertainment.<br>-The filter is not really effective. |
| **Structure** | - The types of promotions to clear.<br>-The main information items are neat, the information is not overloaded. | - Design less attractive.<br>-Some information classified duplicate too much, prone to rebellion.<br>- Some interactive unnecessary. |

# mtrip

Provide your customers with all the trip information they need: flights, online flight procedures, real-time flight alerts, interactive airport maps, accommodation, living places, car rental , operation, etc.
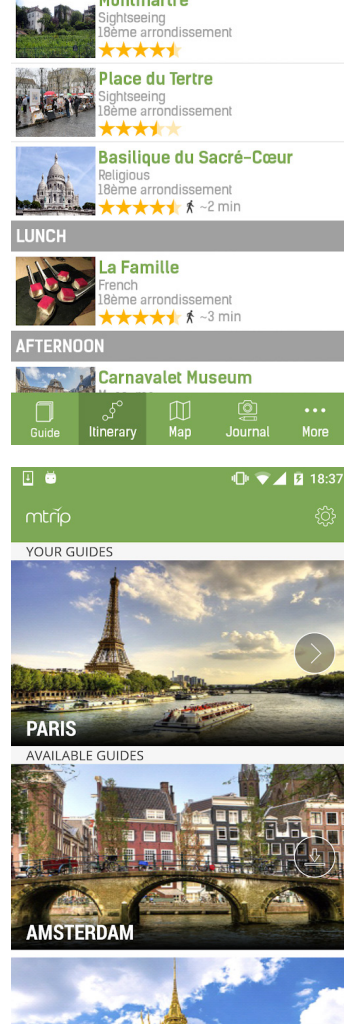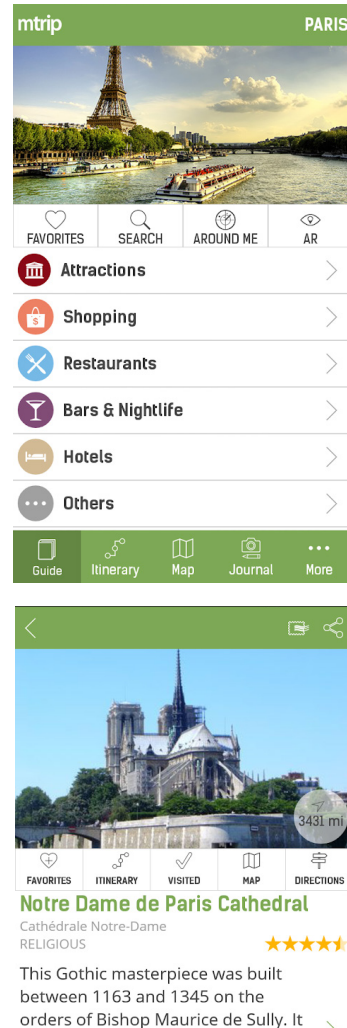


| | PROS | CONS |
|---|---|---|
| **User friendly** | - Schedule in some detail to the user.<br>- Allow users to download all of the location data to the machines want to see offline mode.<br>- Mode directions or search services around you using AR technology is applied in the app.<br>- For users of the fast search operations around his position. | - Just see a brief review and paid before they can use.<br>-The number of locations supporting the schedule is limited, only some countries,not in Vietnam.<br>- The name of the folder is not yet user-friendly.<br>- The display icon is also still strange and how to organize their positions yet for a good experience, lost time finding & understanding. |
| **Structure** | -Filter the locations by users wanting to have strange points and innovation in the design. | - Designed, interface color is bad.<br>- The filter area that shows is not really good for the user to experience. |

**Discover nearby restaurants, ATMs & more**

**Easily navigate through the airport**

**PRO FEATURE**

**View travel plans on a map within iMessage**

**Find out when to leave for the airport**

**PRO FEATURE**

**Instantly create master trip itineraries**

**Hey Siri, what time is my flight?**

**TripIt** – The world's most appreciated travel organization app. TripIt helps travelers to plan travel schedules and many other useful functions are supported during the trip.
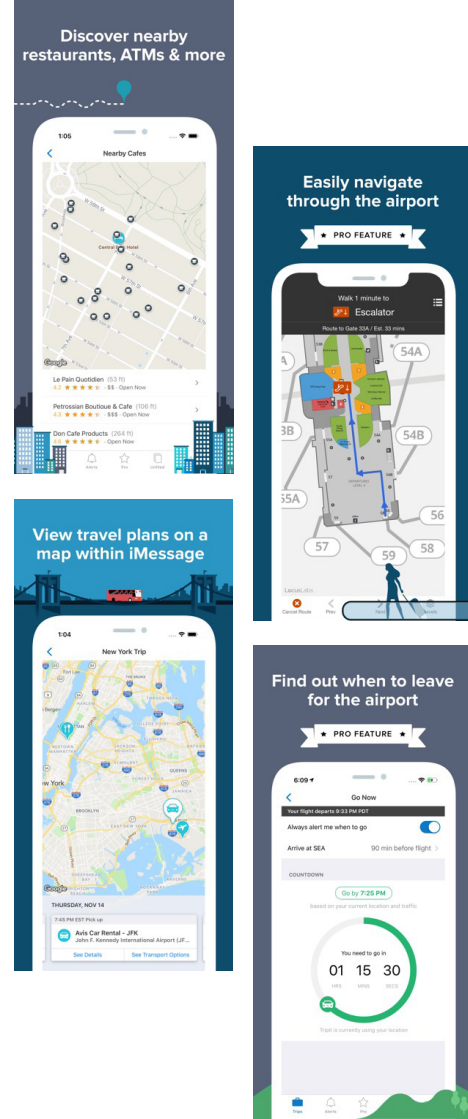
## PROS

**User friendly**

- There are maps in the airport.
-There are statistics on trips made over the year, helping tourists look back on their journey.
-The hotel, transportation is specifically included in the schedule.
-There is a reminder alarm when starting and ending a place.
- Provides quick places near you.
- You can book both parking spaces.
- Allows you to plan and invite people to participate in the trip.

**Structure**

## CONS

- The process of booking flights, trains, car park, ... need to fill a lot of information, users must manually enter your information.
- You must submit each part of the schedule to the TripIt mail through multiple individual items such as hotel reservations, airline tickets.
- If you want to correct the flight information, the system does not automatically completely remove editing, users have to do it manually.
- Only free users a number of features, simple schedule initially, want to experience all the support during the trip, the user must pay a fee ($ 49 / year).
- No arrangement of the steps in the schedule, the user buffet you want to do according to their wishes.
- Features the trip served many ideas as the user rather or select seats on the plane but good intentions but provide less effective experience.

- Design less attractive.
-Some information classified duplicate too much, prone to rebellion.
- Some interactive unnecessary.

## TRIP PLANNER
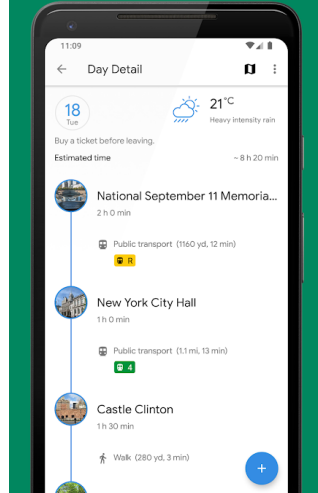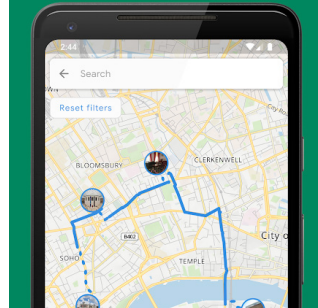
## 360° VIDEOS
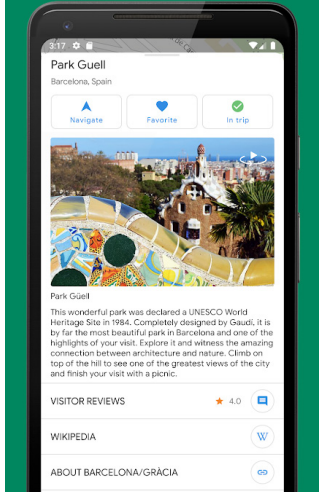
## TRAVEL MAPS

## OFFLINE MAPS
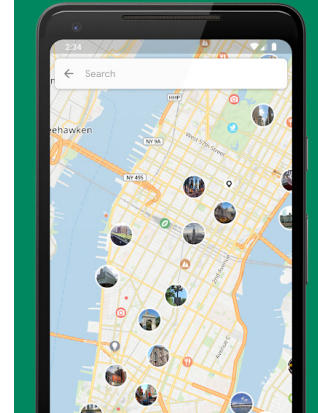
**Sygic Travel Trip Planner** - The app allows you to learn what to do anywhere, plan detailed schedules, and useful travel guides that create an interactive experience during your travels.

## PROS

## CONS

**User friendly**

- A detailed map based on the schedule database.
- Allow download offline maps.
- Your travels will automatically sync across all the devices you use.
- Video 360-degree supports users in front of the specified locations, replacing conventional photos.
- Allows the user to choose the means to travel, provide time travel to every sort of vehicle selected.

- The free features are limited, you pay for it if you want to experience all the features.
- The function of the technological error pretty much after each new update.
- Allow scheduling on the app, but manually do it yourself.
- No flight, train, vehicle booking is provided,... On the app that will link to other apps or pages.

**Structure**

Design, how to organize your in-app items for a good, clear, easy-to-understand user experience.

- The colours in the design are still boring.

Through the research of a number of direct competitors in and outside of the country, the current applications are still limited in helping to schedule a trip:
- There is currently only one application that supports scheduling exclusively for Vietnam but does not satisfy user needs (TripHunter).
- Broader-scale applications (Mtrip, TripIt, Sygic) have improved features in terms of support, however, pay to be used.
- There's a lot of new features to meet the user. However, the support to the schedule is not yet considered and improved.
- There's only Sygic that is supporting the most complete display of scheduling information but not for the user to choose and buy services on the app which should be approved by partners.
- The user can't calculate the cost of a scheduled trip while scheduling on the app.

## 1.3.2.2. Indirect competitor



**MakeMyTrip** is the top online tour app in India. MakeMyTrip provides safe flights, best deals on hotels and help plan your vacation.
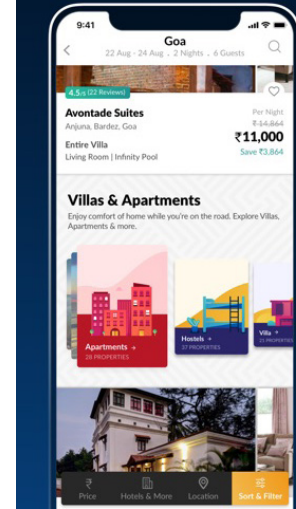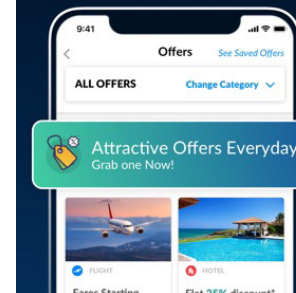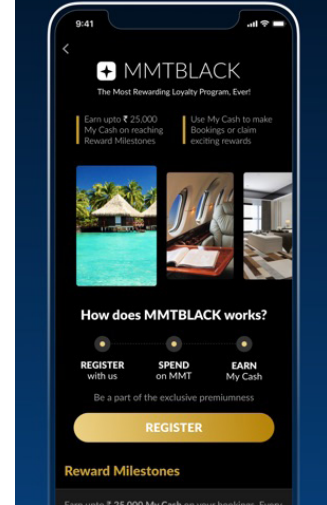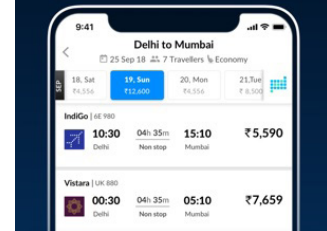
|   | PROS | CONS |
|---|------|------|
| **User friendly** | -The area has a wide application, including Vietnam.<br>-For users to leave contacts and questions to answer, and the application will call or send mail to answer your inquiries.<br>-A variety of language and currency choices.<br>-Transportation, hotel reservation, homestay is very detailed support.<br>-Check the status of any flight on the move by entering flight details. | -Management and enforcement in many countries reduces the information of tourist sites to users.<br>-Not to sum up and offer the price of the trip for users to consider options.<br>- Get great deals every month, dedicated to the user. |
| **Structure** | -Show full and detailed content | - Interface design is not really possible with an application that has a long history (since 2000)<br>- How to sort the steps taken to schedule the user difficult to grasp quickly.<br>- Information messy travel arrangements, many parts are not necessary or desirable combined. |
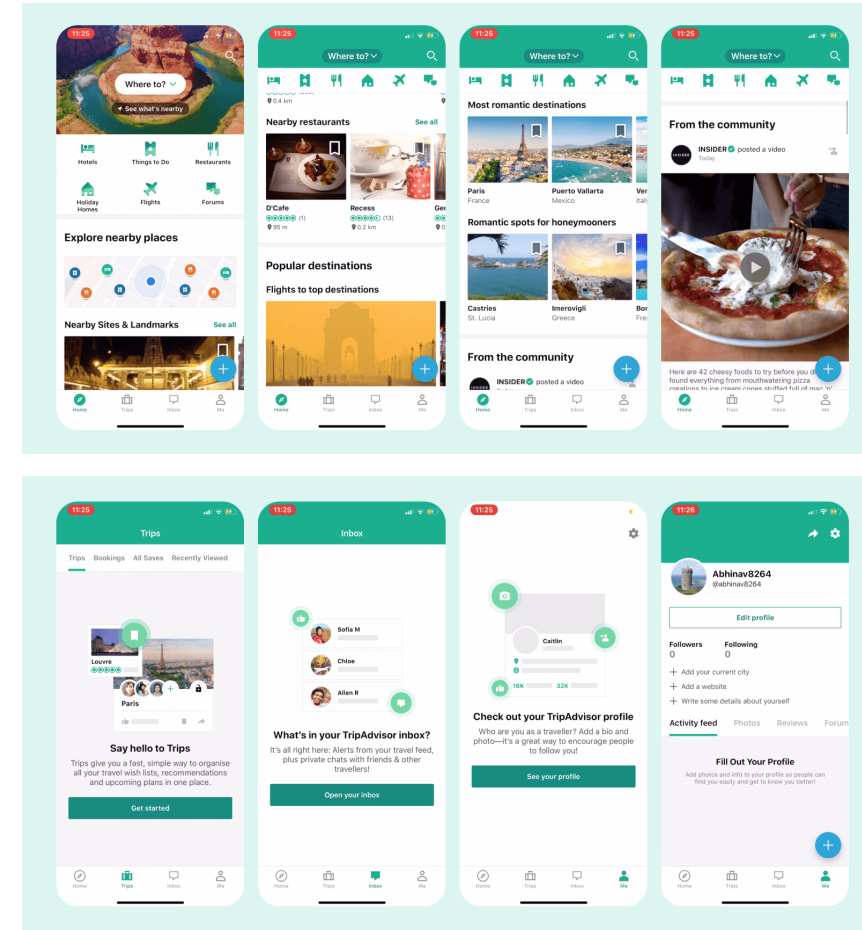




**TripAdvisor** is the world's largest social travel site. With millions of reviews, photos, articles, videos and outlines ideas from tourists and local experts, to make the best choice for tourists.

|  | PROS | CONS |
|---|---|---|
| **User friendly** | -Huge amount of information data (compare lowest prices from over 200 booking pages worldwide).<br>-Interactive forum between tourists. Network images and review self-provided by users.<br>-Anyone can refer to or ask for experience from other travelers.<br>-Locate services near the user. Place services based on destination.<br>-Offer flights, hotels, restaurants, leisure activities.<br>-Give suggestions and save information about the intended trip.<br>-Announce basic weather situation.<br>-Use your language.<br>-The reviews are promoted. | -The visibility of the features, the service item in multiple pages is dense.<br>-Suggestions and save information for the trip is still unspecific.<br>-As a social network, it is difficult to select information.<br>-The promotional information is not taken on the main page.<br>-Information about food is mostly restaurant, there is no address for local budget cuisine.<br>-this app can use your location even if the app is not open, this can reduce battery life. |
| **Structure** | -The categories are clearly divided, the content is well understood.<br>The layout of interface is clear, logic. | - Design division categories are boring and not clear.<br>- The long pages can cause lazy people to use. |



**Useful member features**
Plan better with Price Alerts, Saved List, Easy Reschedule and more.

**Daily promos and member discounts**
Best price guaranteed

**Xperience more around you**
Explore fun activities, attractions, and events

**More than travel**
Book tickets and discover various lifestyle offers
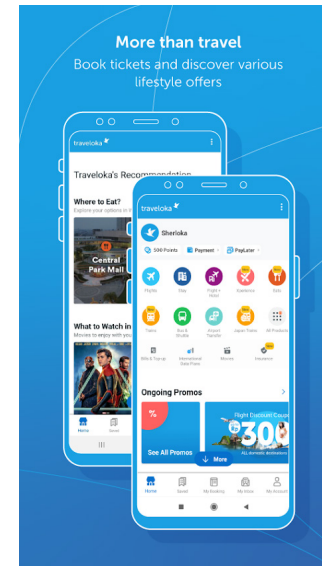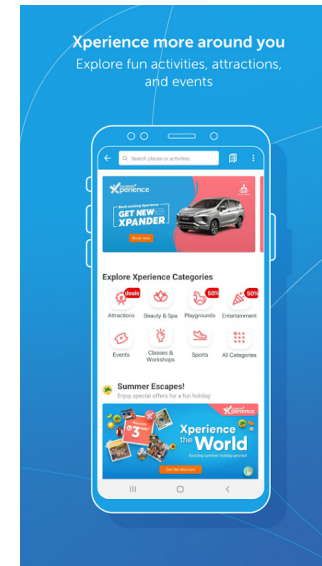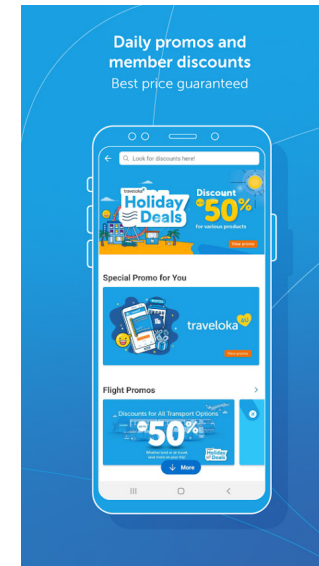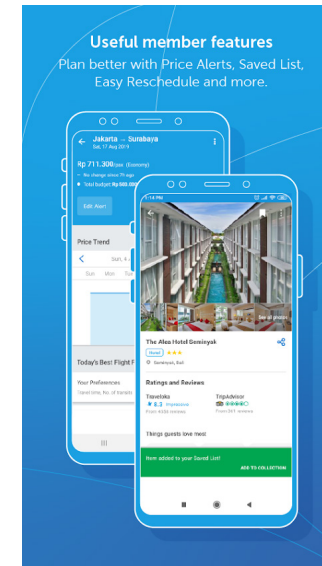


**traveloka**

Traveloka provision of basic services related to tourism such as flight bookings, hotel search, and provides user experiences related to recreational services at tourist sites such as spas, attractions Events.... The app offers a easy search and service experience.

|  | PROS | CONS |
|---|---|---|
| **User friendly** | -Locate the hotel near the user.<br>-Offer hotel and air ticket combos<br>-For users to book deals of entertainment venues<br>-Offer flights at a discount rate and check flight status<br>-Announcement of fare based on budget<br>-Services are sorted by city | -The services that have no specific connection, are still incorporated.<br>-Too much information that can cause disturbances to users |
| **Structure** | -The categories are clearly divided<br>-Types of promotional information clearly<br>-Unified interface design, easy to see | -Informative ads show up much and cause a sense of overwhelmed<br>-Home long can be lazy for the users |

The application indirectly assists the tourists on scheduling the trip to provide quite adequate for the user's needs. But these apps have not yet allowed users to aggregate what is intended during the upcoming trip to the itinerary right on the app:
- Mainly for tourists to easily search and choose to purchase services for trips such as media tickets, hunt for discount codes, hotel reservations or amusement zones,...
- Many interactive features are not yet supported while making the trip.
- Users must plan themselves on other gadgets.

# 1.3
## *Research*

### 1.3.3. Partner

In order to meet the needs of tourists, we link and cooperate with the partners who provide the necessary service for a trip.



**Booking.com**

Booking.com has affirmed its own position by providing extremely diverse and detail information of accommodation in many areas of the world. Especially in Vietnam, Booking.com has been extremely popular with users wishing to travel independently. Compared to some other partners in Vietnam, booking.com has a huge data advantage.

**KLOOK**

Klook is an extremely powerful partner on providing a lot of detail services for tourists. Especially entertainment services, experiences and utilities when traveling such as sim card, wifi ...

**Grab**

Currently in the technology vehicle application industry, Grab is one of the first and most powerful applications in providing transportation via mobile applications. Grab's popularity is more than other similar applications

**Foody.vn**

Referring to food is referring to Foody, now after a period of development, Foody has been widely used when it comes to online food delivery services. With a huge database of food places and authenticity, not to mention Foody's new delivery service makes them an indispensable partner.

# 1.3
*Research*

## 1.3.4. Technology
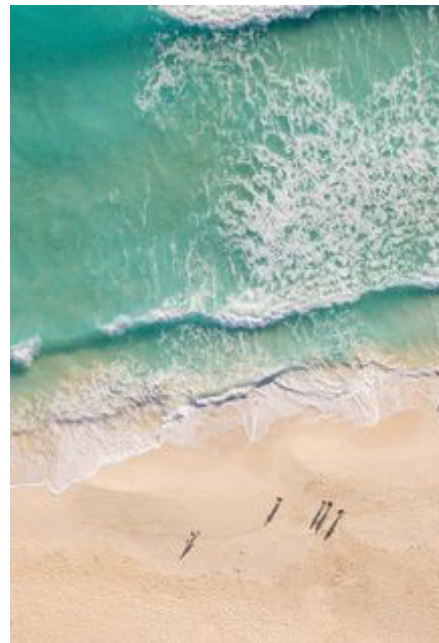
## GPS

GPS - global positioning system is widely applied in almost all areas of life, providing great support for navigation software and maps. With the positioning function on the map, GPS has become a useful technology application for pedestrians in general and travel enthusiasts, love to explore in particular. Today, in addition to location, directions, GPS, it also allows users to search for activities near us without requiring any user information and it works completely independently. on mobile applications.

The GPS applied to Esperie will provide a useful experience for users while traveling or even in daily life. Users will be able to create a travel schedule for themselves easily without the availability of available tours, finding interesting activities around and being able to share their location to others.

## Recommendation system

Recommender systems use algorithms to provide users with product or service recommendations. Recommender systems use artificial intelligence methods to provide users with item recommendations. For example, an online music store may use a machine learning algorithm to classify music by genre and then recommend other songs to a user buying a specific album.

Esperie use recommender system uses this to provide selective places or services in tourism that the user wants to search, helping users to find fast convenient depending on your needs .

# 1.3

*Research*

## 1.3.5. Survey reseach

There's a 64 native and 21 overseas joining the survey.
This survey is divided into three major sections:
- User basic information.
- User travel habits and needs.
- User contributions for Project App.

### Age



- Under 18
- From 18 to 25
- From 26 to 35
- Over 35

(10.6%, 18.8%, 69.4%)

### Gender



- Male
- Female

(38.8%, 61.2%)

### Job Status



- Student
- Employees, working 40 hours / week or more
- Part-time employees working less than40 hours / week
- Business yourself
- No work, I'm looking for work.
- Retired

(5.9%, 9.4%, 23.5%, 56.5%)
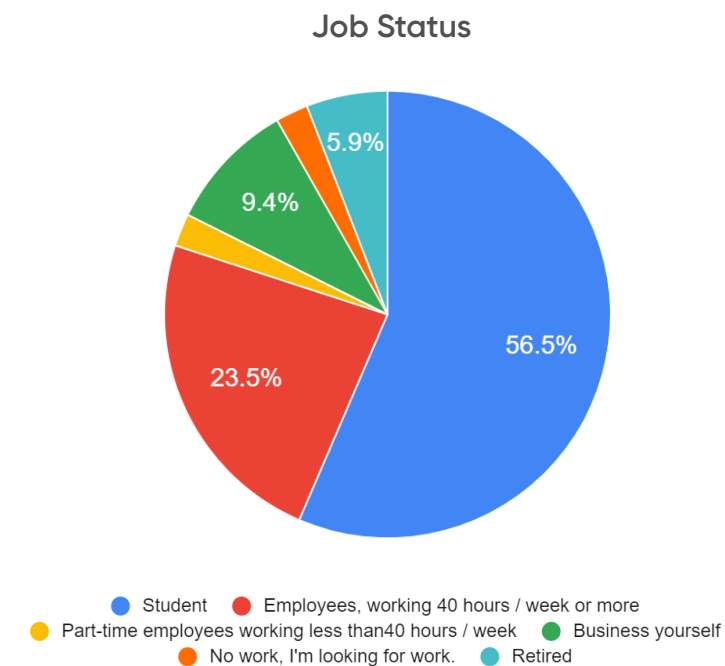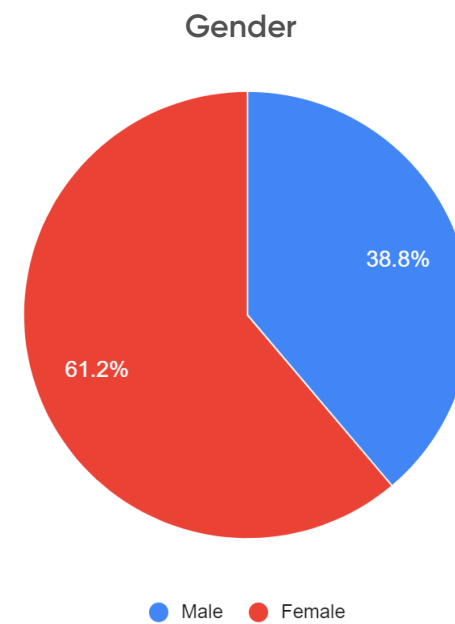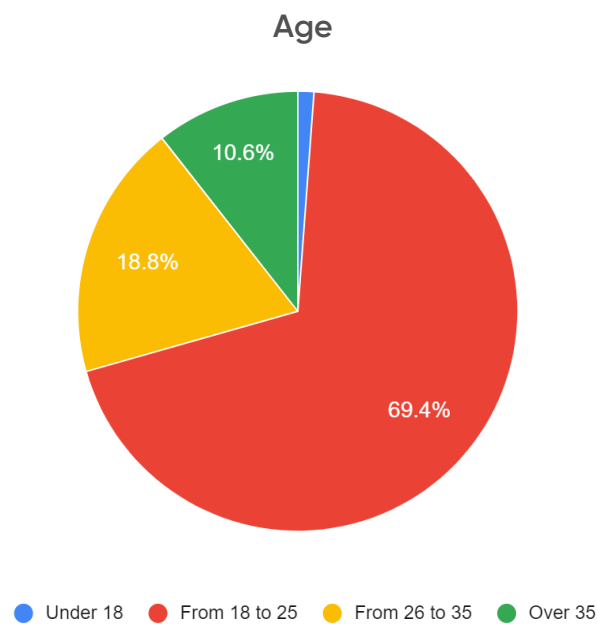
## Which kind of travel do you prefer to go?
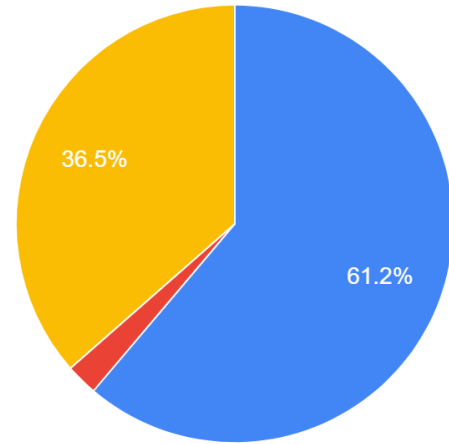


- ● Self-planned tour - be able to arrangeyour trip at your own discretion andexperience more
- ● Guided tours - everything is availableand safe arrangement
- ● Both of the travel forms

## Who are you when join a self-planned tour?
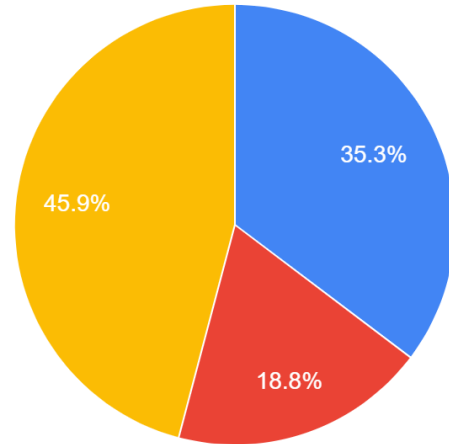


- ● Self-find out and plan trips
- ● Take a group that has friends orrelatives who plan
- ● Both objects on

First, we need the basic information of users including: age, gender and personal preference orientation when traveling. Age and gender help us identify the users who are interested in the survey of the travel topic. We then orient users to their interests and behaviors while traveling to help us easily sort and exploit user information in the next questions.

## User travel habits and needs - User contributions

We divided into two types of users to be easy for surveying and getting information from everyone:
-"When you're a researcher and plan for the trip".
-"When you take a travel group that has friends or relatives who plan".

### When you're a researcher and plan for the trip

## How long do you usually prepare for the trip before?
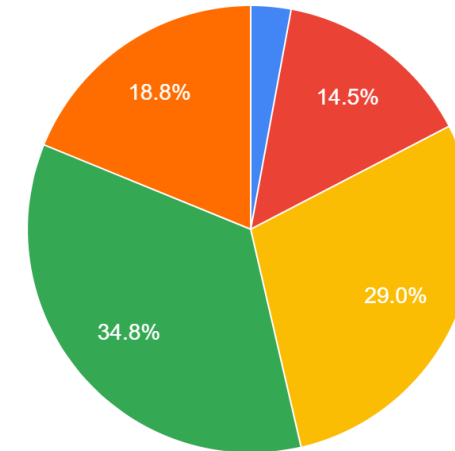


- ● Preparing luggage go right, arrive andfind out later
- ● Before 1-2 days
- ● Before 1-2 weeks
- ● Before 1 month
- ● Longer

## Which form do you travel?
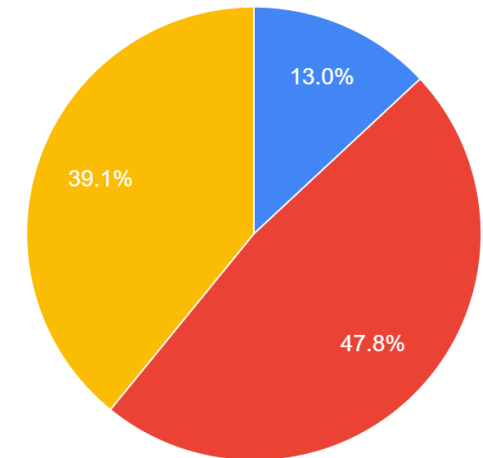


- ● Solo travel
- ● Friend or familly travel
- ● Both

## When you travel on your own, what have you done to servw your trip?

| Category | Value |
|---|---|
| Earn Cheap tickets (airline tickets, railway tickets, tick… | 51 |
| Find out places and popular activities in the destination | 56 |
| Book hotel room | 53 |
| Schedule details for each specific day | 45 |
| Get advice or guidance from experienced people | 51 |

(x-axis: 0, 20, 40, 60)
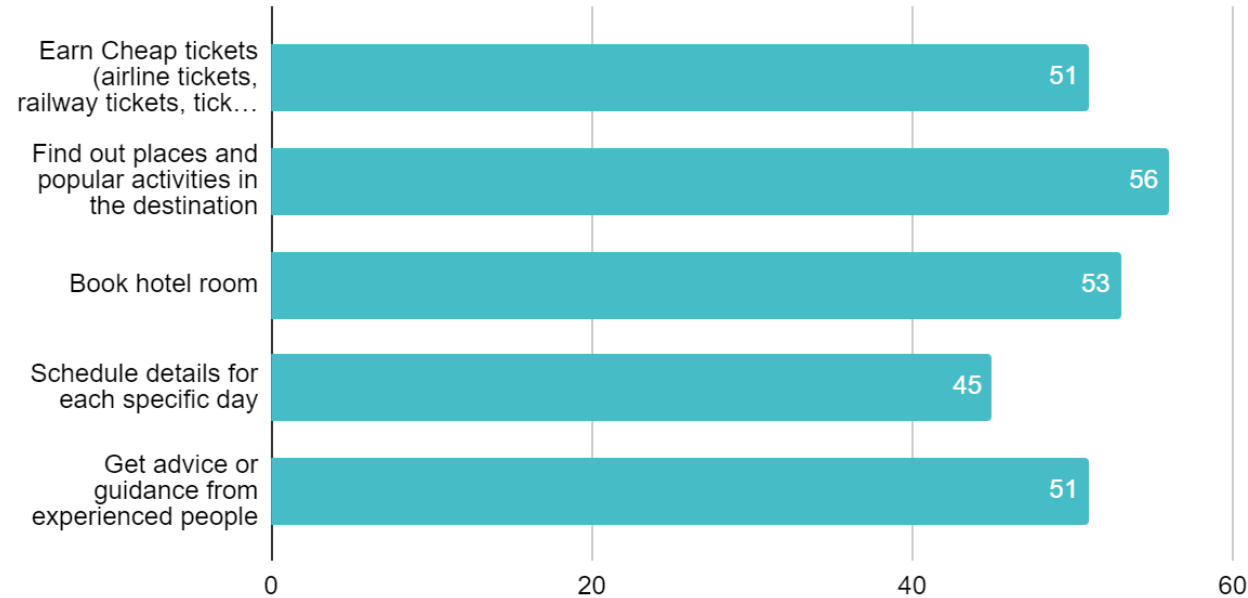
## To prepare for a trip, how do you plan?

From the information users provide about how they schedule travel, we aggregate summary of user comments:
-Research online information, participate in social travel groups to find reviews, then synthesize and offer a schedule that fits the intended time and budget.
-Ask the experienced people.
-Find hotels in advance to be able to estimate the amount to be prepared to carry, then find out the activity to experience in that area.
-Prepare documents and personal belongings
-Search and research for transport to the location.
-Start scheduling from 3 weeks to 3 months.
-Search for time, location; detailed plans for every day,balance costs, find useful services, discount codes… and sum it up in a file.
-Choose a time which is festive or outstanding activities in the tourist destination.
-Plan with friends.
-Search the weather information.
-Use the travel app to make the schedule.

## The travel app
## you've ever used are:

| App | Value |
|---|---|
| Traveloka | 38 |
| Fayfay | 4 |
| Booking.com | 49 |
| Airbnb | 19 |
| Klook | 11 |
| TripHunter | 3 |
| TripAdvisor | 20 |
| Agoda | 26 |
| Mtrip | 0 |
| Skyscanner | 17 |
| Vexere | 9 |
| Expedia | 10 |
| Luxstay | 13 |
| Momondo | 1 |
| Hostalworld | 1 |
| General google se... | 4 |
| No user | 5 |
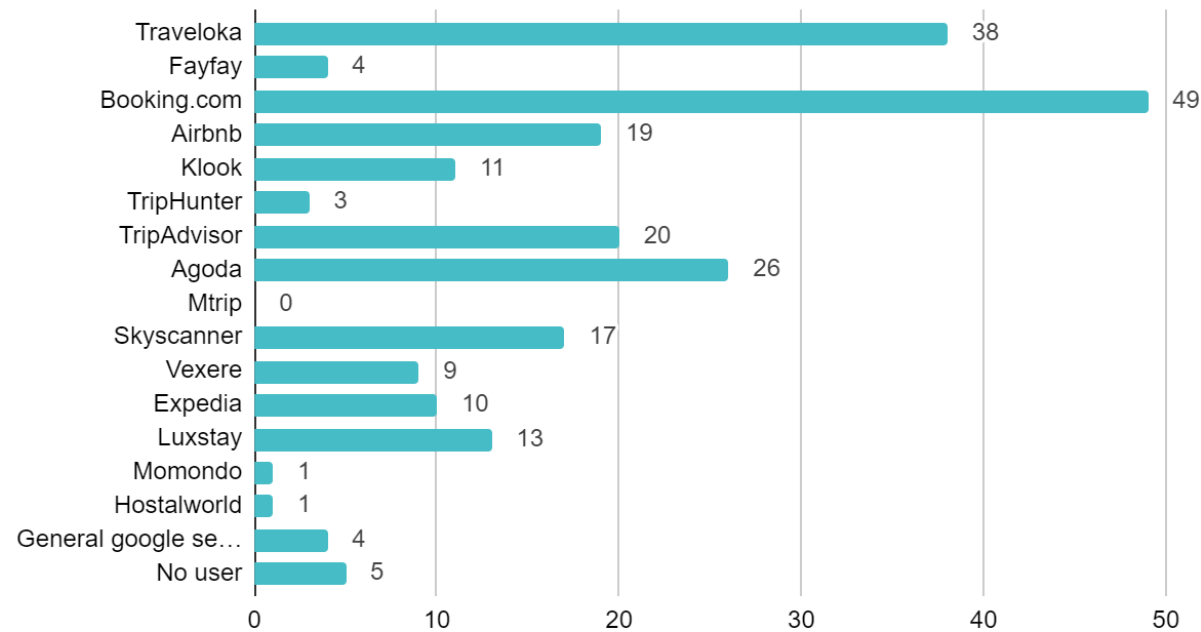
## What funtions do you think should
## be in a travel app?



Use the GPS to share your location for your relatives or your partner (help you easily manage the crowd)

Use GPS to find places around you (food, entertainment, sightseeing ...)

Giving information about transportation in the city

Provide rate currency of your country and Vietnam (if you are a foreigner)

Provide information about the location you need to surround you (safety, hospital, eating, drinking, entertaining...)

Details of the famous culinary venues in the destination

There's a schedule ready to leave immediately (set up the budget target that suits you)

■ Very unnecessary  ■ Unecessary  ■ Normal  ■ Necessary  ■ Very necessary

**In addition to the above functions, do you want to add add-ons or solve problems when using the self-sufficient travel assistant app?**

We aggregate from the comments of user contributions:
-Provide information on vehicles in tourist places.
-Information about local prices.
-The app must be convenient and easy for everyone to use.
-Information on buses at tourist sites.
-Check weather in tourist destination.
-Tips, reviews for the locations.
-Describe photographs and information about the hotel needs exactly.

**Are you interested in self-scheduling for your trip?**
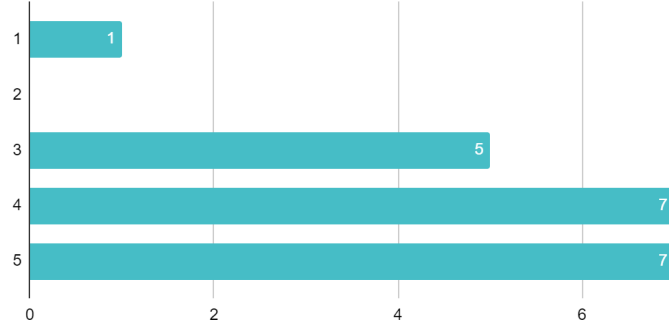


**Do you know it or have you used the app on your phone about travel?**
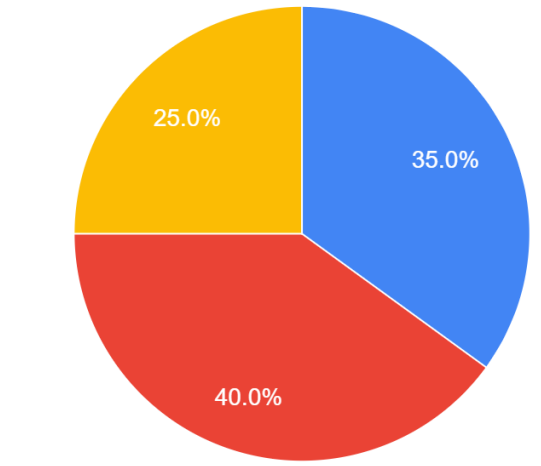


- You know it and you used it
- Known but not used
- I don't know

## What do you think you're having trouble getting on the schedule?

| Category | Value |
|---|---|
| Have to find out too much information, fun activities at the destination | 6 |
| Arranging a reasonable schedule is difficult (road, shelter, recreation, ...) | 17 |
| Busy, there's no time. | 4 |

(x-axis: 0, 5, 10, 15)
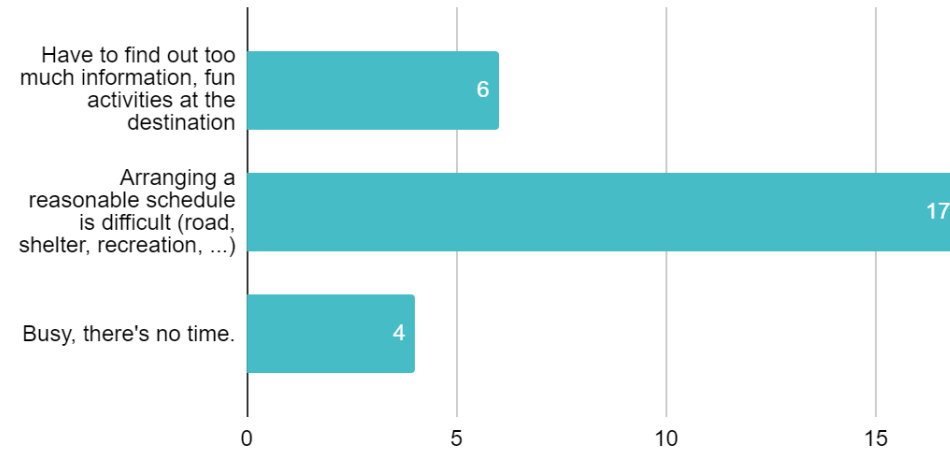
## What other contributions do you have for us to develop the app to help you schedule more easily?

-Supports multiple languages
-Have a specific map, the order of places to go on the map, select the points that you want, and show the shortest path.

## From the above charts, we can see users' recommendations on features which should be included in Esperie App:

-Share schedules for your friends and invite them to participate in a trip itinerary.
-Propose locations, activities, services that users are looking for through recomendation system.
-Display and update the weather information in each location.
-Update locations, highlights and time should come for each city.
-Calculate the budget of the trip, show the local currency the user wants to arrive.
-Provide media information.
-Use GPS to search for activities around the user or area that the user wants.
-Support multiple languages and currency of the user.
-Show map route of the itinerary by day.

# 1.4 Specify requirement

### 1.4.1. Main Problem For Users

After researching about competitors and users, we have realized the problem of users when planning travel schedules with the support of travel applications:
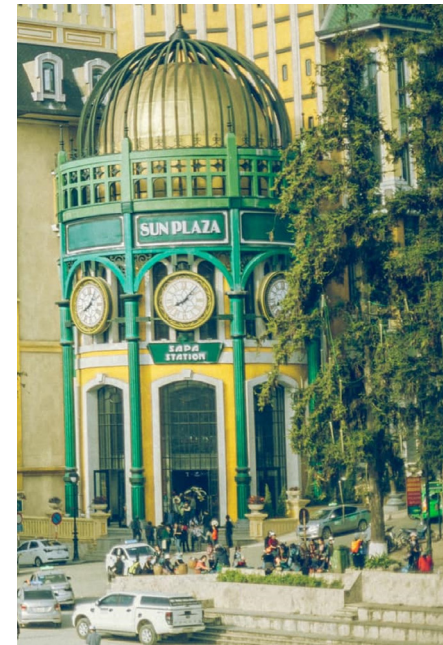
| User's Problem | Positive Solution |
|---|---|
| The information on the Internet is too much, to find out and filter the right and rationally, it takes a lot of time.. | Research, filter information and suggestions to the user. |
| Poor, unattractive interface design. | Design the application interface attractively, clear layout, easy to identify, create emotional satisfaction during use. |
| Users lack information of essential budget for the trips.. | Provide users with essential information about budget and currency of the destinations. |
| The interaction with the user from the start to the end of the trip is limited while using the travel application create the schedule. | Increased interaction with the user during and after the trip: directions, change location, search around, ...) |

# 1.4

## *Specify requirement*

### 1.4.2. App Main Functions

After pointing out all existing problems and viable solutions in the travel applications, we define the functions that should be included in order to provide better quality service to the customer:

-Provide basic functions (search, schedule, hotel bookings, culinary searches, search for places of interest) through partners.
-Provide the scheduling assistant function.
-The function of search with detailed filter based on the needs of tourists.
-GPS is deployed to search, locate, and share location.
-Function calculates the optimal cost of the trip.
-Share, invite friends to participate in creating the schedule.

# 2.1
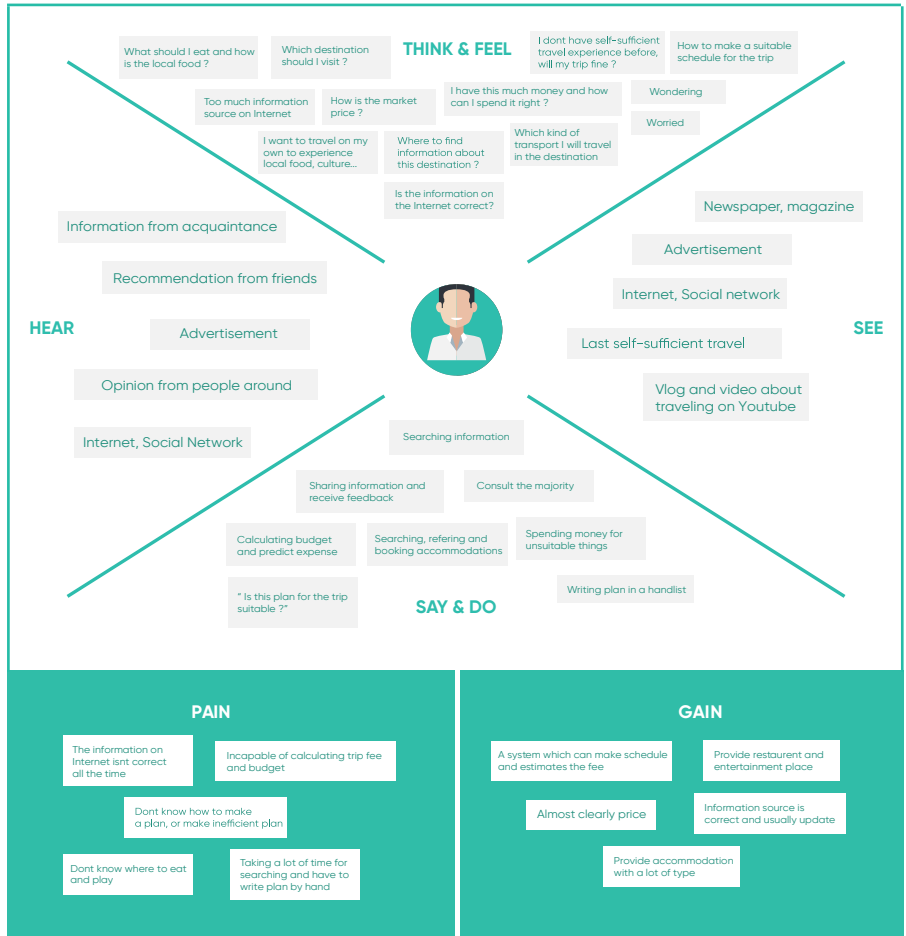
## *User requirement specification*

## 2.1.1 Who our user are:

From the research process, we draw our target user:

| | |
|---|---|
| **Age** | 18-25 |
| **Hobbies** | - Travel<br>- Cultural Experience<br>- Use the phone |
| **Frustration** | -Have to search and filter a lot of information to create the schedule<br>-The support of the application when creating limited schedules<br>-No support for transport information.<br>-How unreasonable information is sorted<br>-There's no suggestions of what you want. You have to look for yourself. |
| **Objectives** | -Information about the hotel, places of interest, full entertainment and clarity.<br>-There are tools for creating easier schedule.<br>-Management is spent.<br>-Many support functions during the trip and after trip. |

## 2.1.2. Empathy mapping

After defining who our target audiences are, we create an empathy mapping in order to provide a glance into our user:



**THINK & FEEL**

What should I eat and how is the local food ?
Which destination should I visit ?
I dont have self-sufficient travel experience before, will my trip fine ?
How to make a suitable schedule for the trip
Too much information source on Internet
How is the market price ?
I have this much money and how can I spend it right ?
Wondering
Worried
I want to travel on my own to experience local food, culture...
Where to find information about this destination ?
Which kind of transport I will travel in the destination
Is the information on the Internet correct?

**HEAR**

Information from acquaintance
Recommendation from friends
Advertisement
Opinion from people around
Internet, Social Network

**SEE**

Newspaper, magazine
Advertisement
Internet, Social network
Last self-sufficient travel
Vlog and video about traveling on Youtube

**SAY & DO**

Searching information
Sharing information and receive feedback
Consult the majority
Calculating budget and predict expense
Searching, refering and booking accommodations
Spending money for unsuitable things
" Is this plan for the trip suitable ?"
Writing plan in a handlist

**PAIN**

The information on Internet isnt correct all the time
Incapable of calculating trip fee and budget
Dont know how to make a plan, or make inefficient plan
Dont know where to eat and play
Taking a lot of time for searching and have to write plan by hand

**GAIN**

A system which can make schedule and estimates the fee
Provide restaurant and entertainment place
Almost clearly price
Information source is correct and usually update
Provide accommodation with a lot of type

## 2.1.3. User personas

We have created three fictional characters representing different users can use the app tourism based on our research. From there, we'll be able to find more about our users need, experience, behavior and objectives.



**USER PERSONA**

She is a travel lover, when she does not have time to travel, almost every day, when she has free time, she drives herself around the city to see the scenery or simply likes to sit in the grass to enjoy the fresh air.

She gives herself a short break for a year to travel. She may not spend money on food to save for traveling.

### PROFILE

Name:            Ha An
Age:             22
Professional:    Teller
Marital status:  Single
Hobbies:         Travel, photograph
Location:        Beijing, China
App:             Booking.com  traveloka

**USER WANTS**

- She wanna traveling around the world.
- She loves nature, mountains, seas and discovering,...
- She likes to go tramping, sightseeing and shooting or filming the places she goes through.

**USER GOALS**

- Satisfying her travel preferences
- Planning a trip is no longer a difficult problem.
- Save money to the fullest extent depending on her ability.

---



**USER PERSONA**

He is a busy person who has to perform regularly at events in many places. In his free time, he often wanders around the streets where he has to go for work or when he rewards himself for a brief vacation.

He often goes to cafes where he often plays music with the genres he likes, especially guitar and trumpet. He likes to explore and explore music differences between different places

### PROFILE

Name:            Anh Khoa
Age:             22
Professional:    Musician
Marital status:  Single
Hobbies:         Music, food, traveling
Location:        Danang, Vietnam
App:             airbnb  traveloka  like a local city guide

**USER WANTS**

- He often has to go to many places for work.
- He loves music and likes to explore.
- He likes to go to music venues to listen to new tunes when he is traveling or having free time while working.

**USER GOALS**

- Quick search of activities, nearest service.
- Propose places for tea, coffee or music events in the areas he visited.
- Proposing suitable places for motorbikes and bicycles to rent around the places he goes.

He is so addicted to travel that every chance she will go.

He's a travel lover, she likes to explore new lands, learn about culture in many parts of the world. She has great passion for food. Therefore, she likes to go to many places to enjoy delicious food.

## PROFILE

Name:            Li Xian
Age:             26
Professional:    Interior designer
Marital status:  Single
Hobbies:         Food, fashion, traveling
Location:        New York, America.
App:

**USER WANTS**

- He wants to explore the culture of new lands.
- He loves travel.
- He likes strange food and drinks, delicious dishes in the world she wants to try.

**USER GOALS**

- Satisfy his needs for great travel.
- Proposing food spots for his passion.
- Save he budget because he travels too much.

# 2.2
## Building the first sitemap
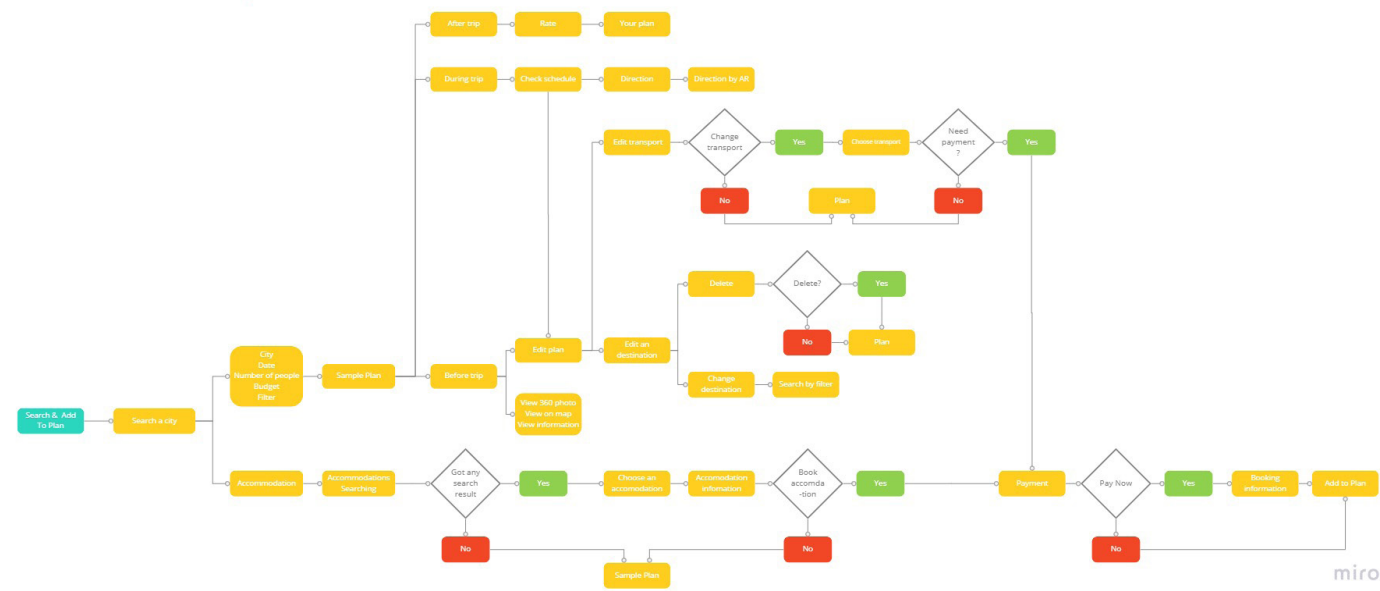
### 2.2.1. User story mapping:

Based on what we came up when we discuss, we demonstrate it in a more visual way, through user story mapping. This shows the way users will go from the basic function to the most vital one.
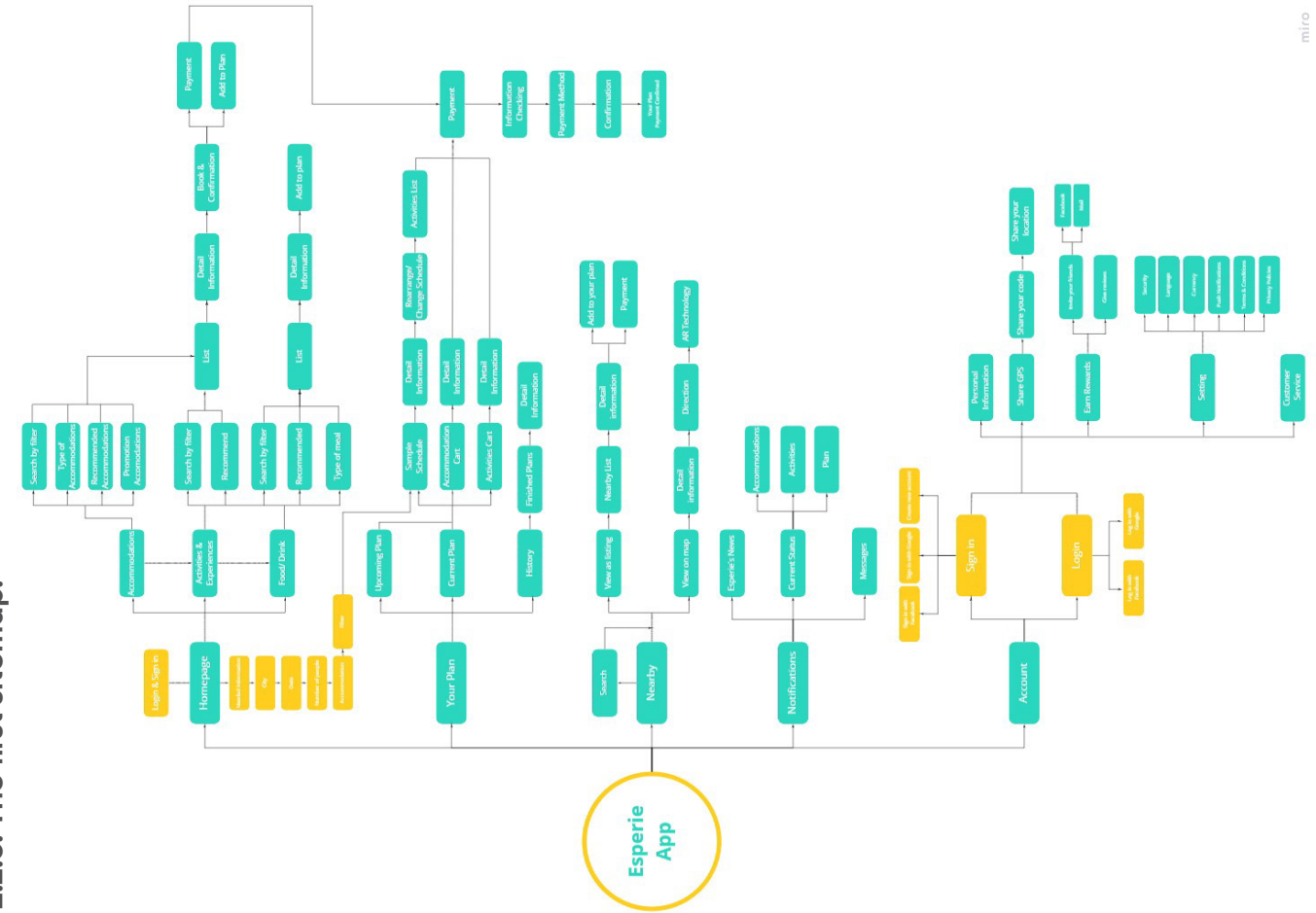
## 2.2.2. User flow

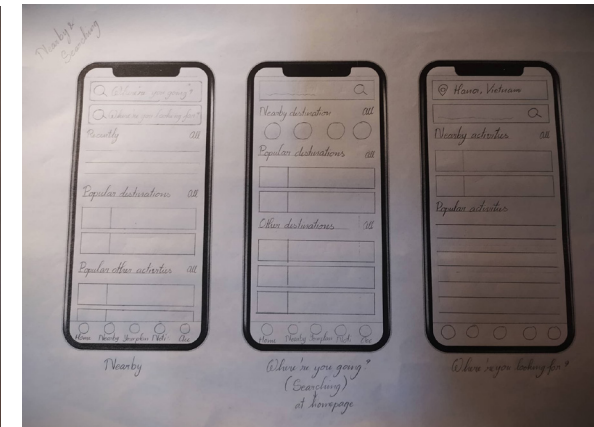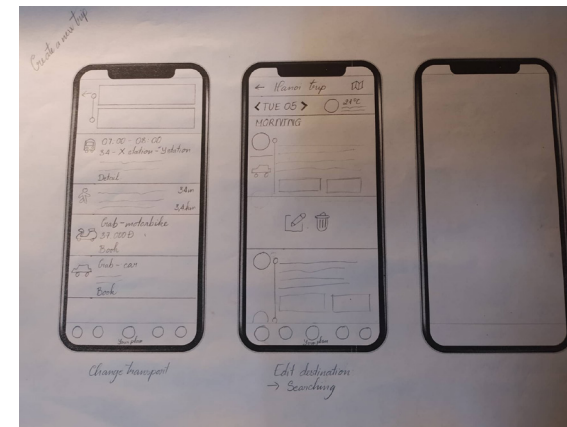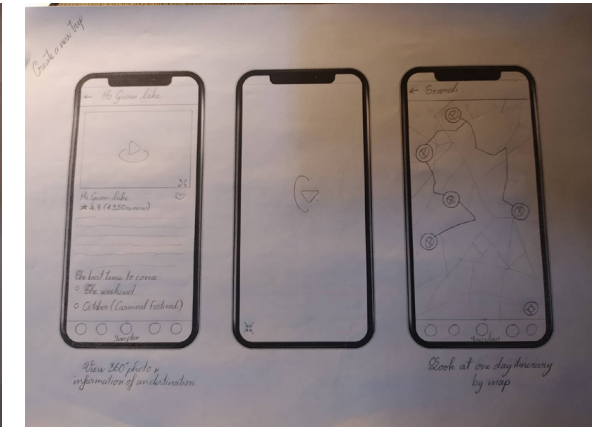After finishing user story mapping, we have created an user flows which is the main flows of travelers in our app.

### Search & Add to plan



**2.2.3. The first sitemap:**

# 2.3
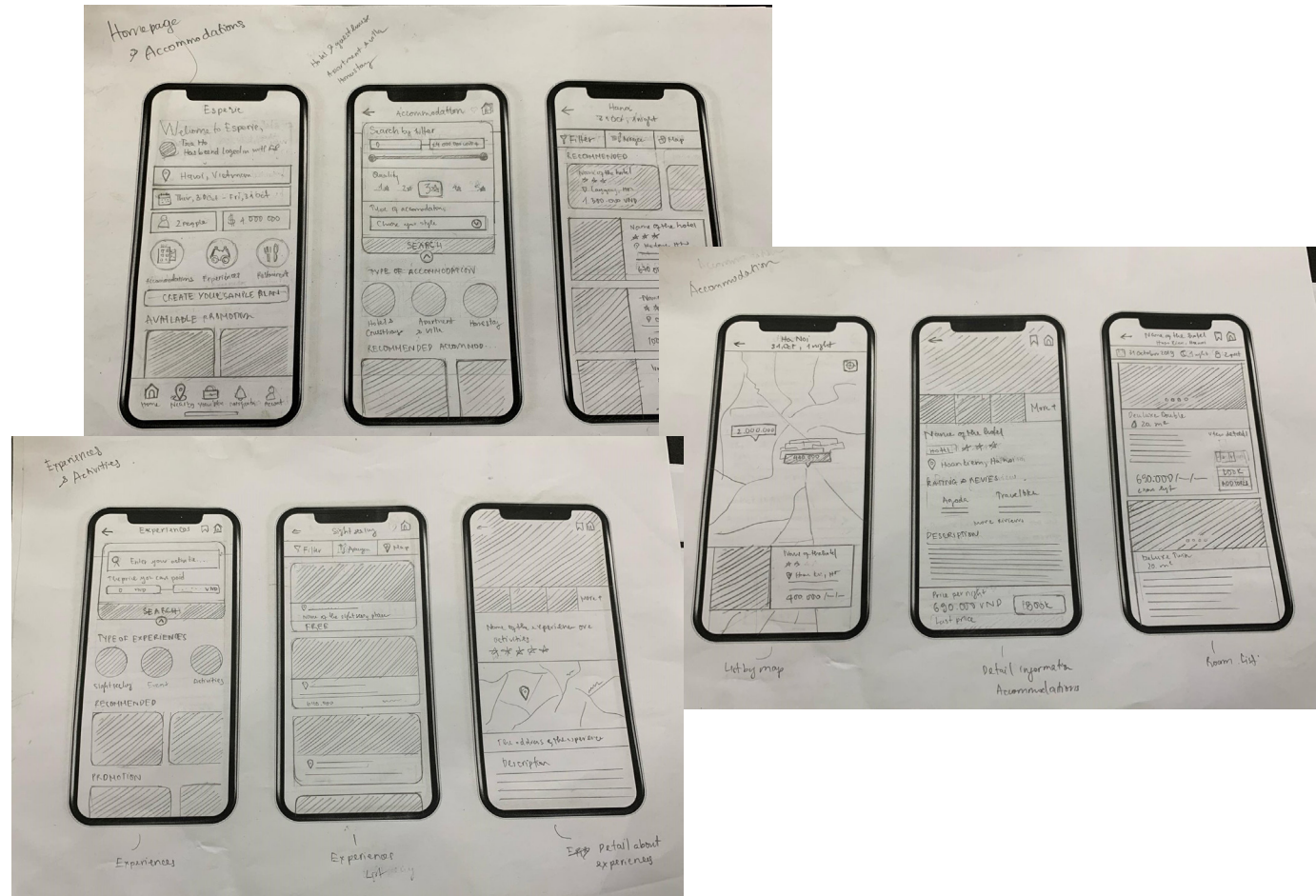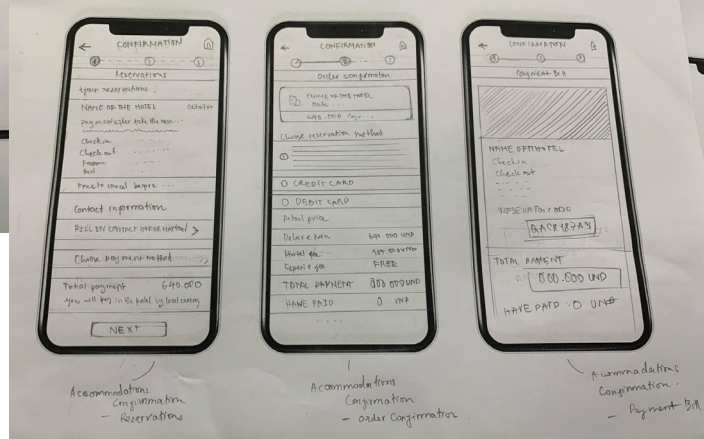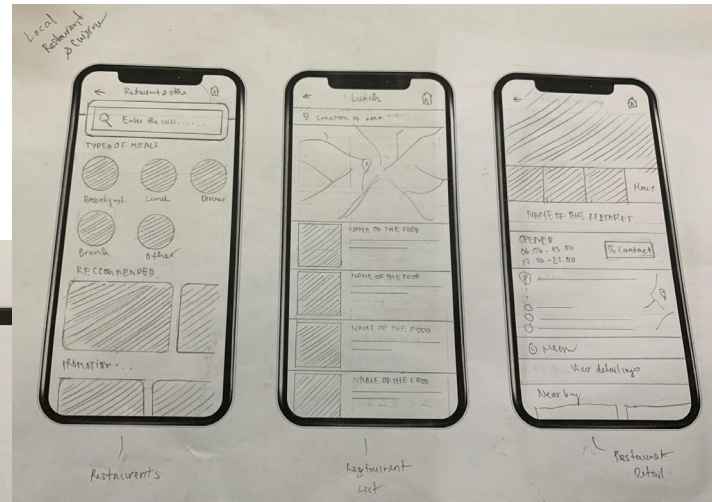## *Building the prototype*

### 2.3.1. Paper sketch
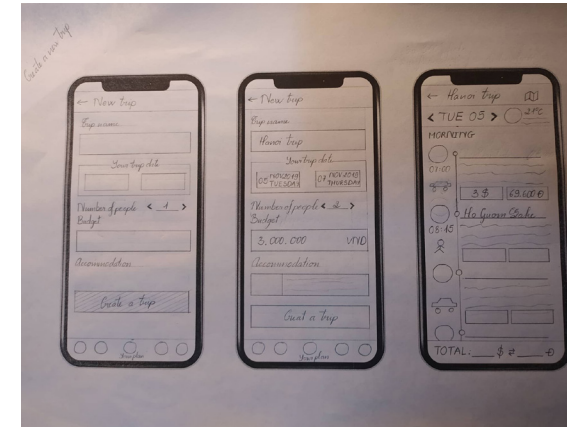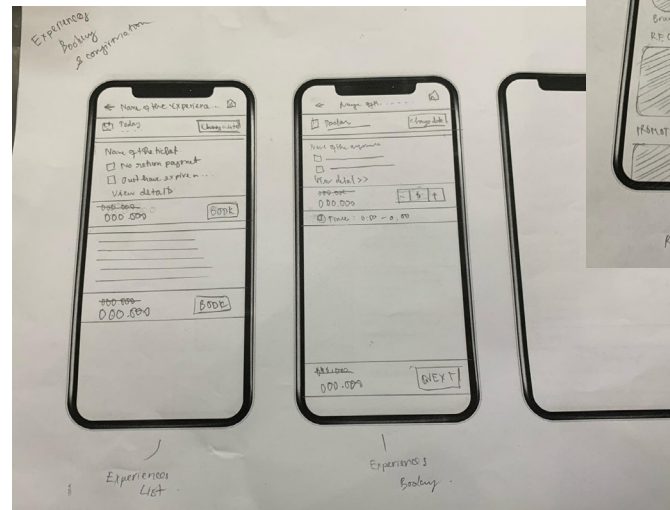
## 2.3.2. Wireframe

Wireframes represent the exact structure of app screens. From the paper prototype, we have developed our app's wireframes with the help of Balsamiq. In Balsamiq, we can also link the screens to make users feel like they are using a real device during usability testing.

## Account

## Your cart

# Your cart

### Booking Overview

SELECT SELECT

BOOK NOW

### Payment method

Pay first

SELECT

Pay later

SELECT

DONE

### Payment method

Pay first

SELECT

Pay later

SELECT

DONE

# Create a new trip

### New trip

Trip name

Your trip date

Number of people

Your budget

Accommodation

Filter

All    Sea    Moutain

CREATE NEW TRIP

### New trip

Trip name

Calendar

November 2019

Cancel    Done

CREATE NEW TRIP

### New trip

Trip name

Hanoi trip

Your trip date

Thu 30 Oct - Sat 2 Nov

Number of people    3

Your budget

6.000.000    VND

Accommodation

Filter

All    Sea    Moutain

CREATE NEW TRIP

## Your plan

### Hanoi trip
TUE 05   25°C 20°C

MORNING

Ho Guom Lake
07:00

USD    VND

08:00

USD    VND

08:00

USD    VND

AFTERNOON

TOTAL    USD    VND

### Ho Guom Lake

Ho Guom Lake
★ 4.7 (25,673 reviews)

The best time to come

### Hanoi trip
TUE 05   25°C 20°C

MORNING

Ho Guom Lake
07:00

USD    VND

08:00

USD    VND

AFTERNOON

TOTAL    USD    VND

## Your plan

Search in map day

# Nearby

Where're you going?

Where're you looking for?

**Recently**

**Popular destination** All

**Popular activity** All

---

Where're you going?

**Nearby destination** All

**Popular destination** All

**Other destination** All

---

Hanoi, Vietnam

Where're you looking for?

**Nearby activity** All

**Popular activity** All

Hanoi, Vietnam

Pho

---

**Pho Hanoi**

⭐ 4.7 (25,673 reviews)

USD    VND

Ratings and reviews

**Menu**

---

**Name of the activity**

⭐ 4.7 (25,673 reviews)

USD    VND

Ratings and reviews

The same activities

Add to cart    Book now

## Accomodation



| Hanoi |
| --- |
| 567.000đ |
| 567.000đ  567.000đ |
| 567.000đ |
| 567.000đ |

The Queen Hotel

USD    VND
**Select**

USD    VND
Select

Add to plan    Book now

The Queen Hotel
★ 4.7 (25.673 reviews)

USD    VND

Ratings and reviews

Common facilities                    All

Decription

Select room
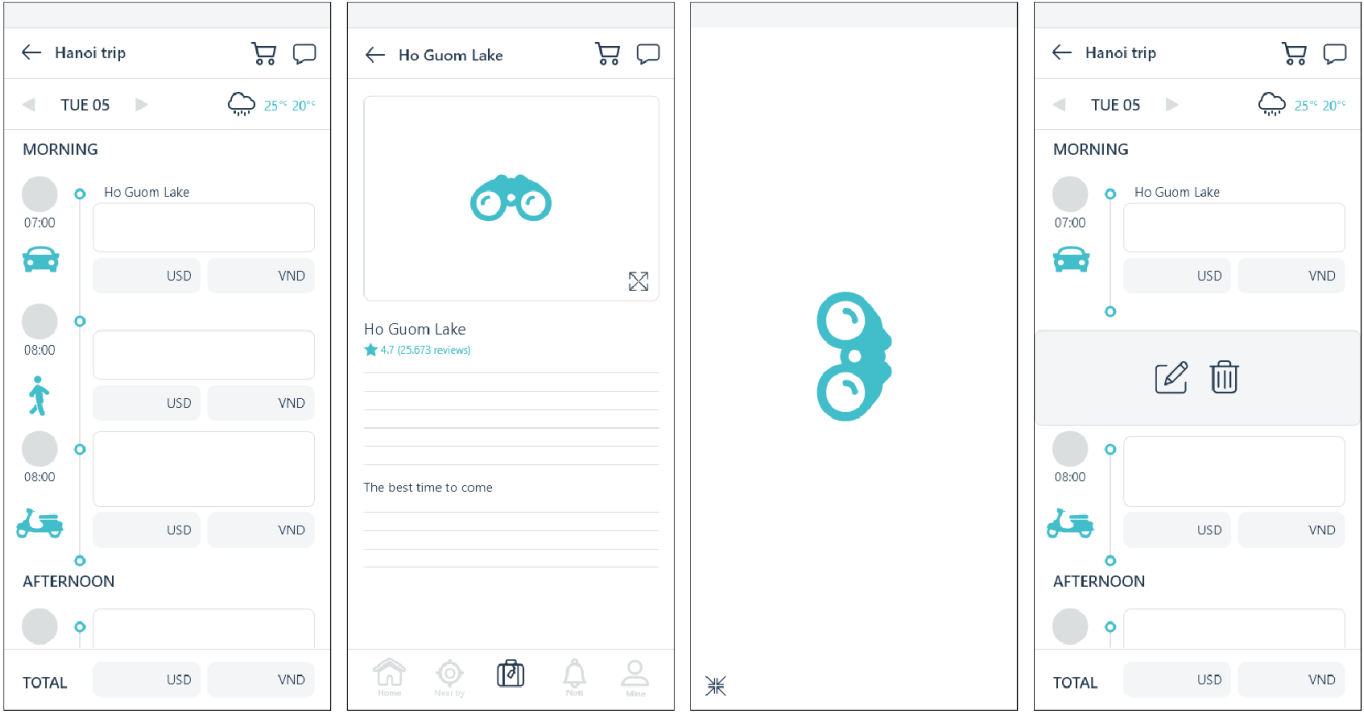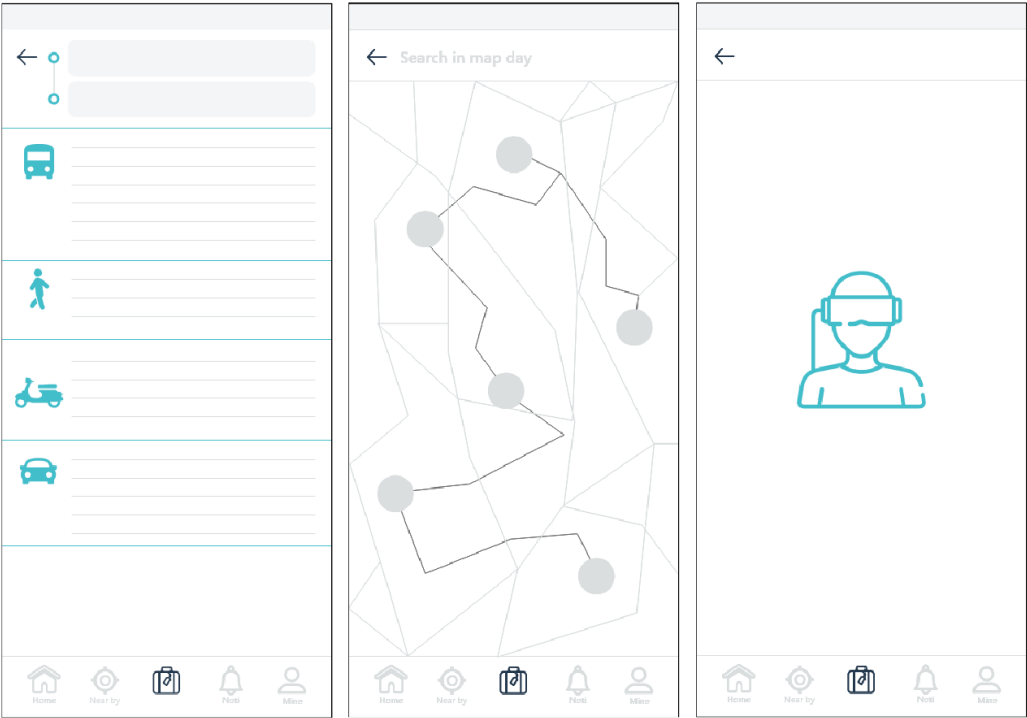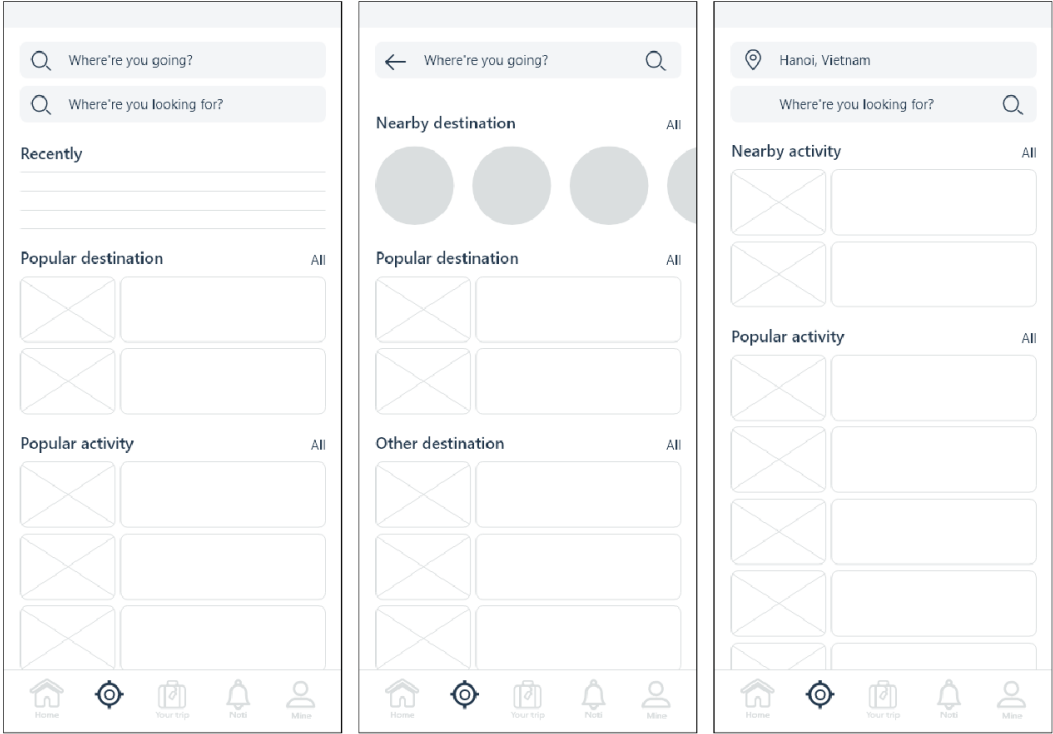
# 2.4.
## Visual language

## 2.4.1. Design Inception Worksheet

We have created a design inception worksheet after careful discussions.

**SPACE**

**COLOUR**

VISUAL LANGUAGE

Organized

Turquoise Blue

Yellow

Space

MOOD

Grey

Optimistic

Creativity

Energtic

Black

WHY

Informative

Inspiring

White

Make an easy and smart travel plan. Update information about accommodations, expriences, local restaurents... Convinient in using Freshy & active looks

Balanced

Freshy

Trustworthy

Round

Clean

Minimal

Modern

Effective

Clearly

Efficient

Round Rectangle

Enjoying

Speed

Rectangle

Logical

**SHAPE**

**MOVEMENT**

## 2.4.2. Moodboard

Aa Aa

**SVN Gilroy**   SVN Gilroy

*Esperie*

Esperie will provide you the best experiences in travel with our planning system. Beside, we also provide users informations about accommodations, activites, local restaurents...

## 2.4.3. Style guide

**Primary Colors**

#309E89  #46C1AA  #C7EFE6

**Secondary Colors**

#FDB913  #231F20  #414042#  939598  #A7A9AC  #E6E7E8  #F1F2F2

**Navigation & Header**

Home  Nearby  Your Trip  Notifications  Profile

Browse

The Farmer - Gardenista

Coffee

**Calendar**

NOVEMBER 2019

| SUN | MON | TUE | WED | THUR | FRI | SAT |
|-----|-----|-----|-----|------|-----|-----|
|     |     |     |     |      | 01  | 02  |
| 03  | 04  | 05  | 06  | 07   | 08  | 09  |
| 10  | 11  | 12  | 13  | 14   | 15  | 16  |
| 17  | 18  | 19  | 20  | 21   | 22  | 23  |
| 24  | 25  | 26  | 27  | 28   | 29  | 30  |

NOVEMBER 2019

| SUN | MON | TUE | WED | THUR | FRI | SAT |
|-----|-----|-----|-----|------|-----|-----|
|     |     |     |     |      | 01  | 02  |
| 03  | 04  | 05  | 06  | 07   | 08  | 09  |
| 10  | 11  | 12  | 13  | 14   | 15  | 16  |
| 17  | 18  | 19  | 20  | 21   | 22  | 23  |
| 24  | 25  | 26  | 27  | 28   | 29  | 30  |

**Buttons**

BUTTON

BUTTON

Button  Button  Button

Lorem ipsum  Lorem ipsum

**Icons**

# 2.5

## *Usability testing plan*

### 2.5.1. The purpose of Usability Testing

To understand how the user interacts with the application, we perform the test of the user ability. We select the wireframe test for the first time as it was easy to manipulate the user as well as for us to evaluate the problems in the process of using the design in the most correct way.

### 2.5.3. Usability Testing questionnaire

We divide the question into three basic sections:
Users and Applications:
-Personal information?
-Do you understand what our application is?
-When doing the test, what do you expect with the wireframe test tool?
-Are you easily aware of the location and function of the application?

User's interaction with the app:
-Do you see our main functions enough information?
-Is there any function that is redundant and unnecessary?
-Are you easy to remember the operation of the main functions?
-Does our test provide enough details of the functions for you to understand them?
-Are there any stage or functions you feel confused and unsatisfied in the process of using?
-When you look at the buttons on the screen, do you easily know and identify its functionality?
-What do you stop when you are performing a task?
-Are you satisfied with all of our functions?

Users' general feelings after usability testing
-Do you feel satisfied after use?
-How about the composition of the display on the screen is OK?
-Do you have any suggestions or comments for our app?

### 2.5.2. How we conduct a Usability Test

We use wireframes to test with 5 users. The screen has been linked in a logical order, so that users can feel almost using a real application.

For users to understand the application, we introduce our application to users and perform the operation on wireframes. During the implementation process, we guide users to manipulate using wireframes, notes and photograph the process. After that, we completed a small sum of problems of the user's problems and found a way to fix them.

### 2.5.4. Usability Testing preparation

We choose 5 people to join the app user experience. And here are 5 participants:

| Participants | Sex | Age | Have experienced? | Interested in traveling experience or self-sufficiency? |
|---|---|---|---|---|
| Chu Anh Ngoc | Female | 24 | Yes | Yes |
| Nguyen Lan Dung | Female | 19 | None | Yes |
| Nguyen Tra My | Female | 22 | None | Yes |
| Hoang Minh Duc | Male | 23 | Yes | Yes |
| Pham Thuy Linh | Female | 20 | None | Normal |

## 2.5.5. Testing Results

| What we need to know | Results from testers | | | | |
|---|---|---|---|---|---|
| | Ngoc | Dung | My | Duc | Linh |
| Do you see our main functions enough information? | No | The clue schedule should add the same location so that users more choices for themselves | Add the same location so that users more choices for themselves | Yes | Yes |
| Is there any function that is redundant and unnecessary? | Budget | Divide the day unnecessary | Skip the budget section is also okay | Divide the day unnecessary | Yes, Budget is not required because the information on the tourist location form is limited |
| Are you easy to remember the operation of the main functions? | Maybe | Yes | Yes | Yes | Yes |
| Does our test provide enough details of the functions for you to understand them? | No | Yes | Yes | Yes | No |
| Are there any stage or functions you feel confused and unsatisfied in the process of using? | No | No | No | No | No |
| When you look at the buttons on the screen, do you easily know and identify its functionality? | Yes | Should change Your Trip icon | Yes | Yes | Yes |
| What do you stop when you are performing a task? | Create trip | No | No | Scheduling process lengthy | Scheduling process lengthy |
| Are you satisfied with all of our functions? | No | Yes | Yes | Yes | Yes |
| What do participants think about the overall layout? | It's okay | Clear | Yes | Yes | It's fine |
| Feedbacks and suggestions | Edit " Create trip" process | As above | Should let users choose their own destination | Let the user decide the Transport | Should let users choose their own destination and adjust their own costs |
| Will you use our apps in the future? | Yes | Yes | Yes | Yes | Yes |

## USABILITY TESTING SUMMARY

We aggregate from the user's comments during the experience including paper copies and sound recordings. Here are the parts we will improve for our app:
-Remove the budget fill right before the schedule is created.
-Modify the progress of each function of the application.
-Allows users to change the transport
-Do not give sample schedules to users, so that users actively add the locations they want on the schedule.
-The system automatically arranges the destination in a reasonable time sequence.
-Not divide the day into morning, noon, evening.
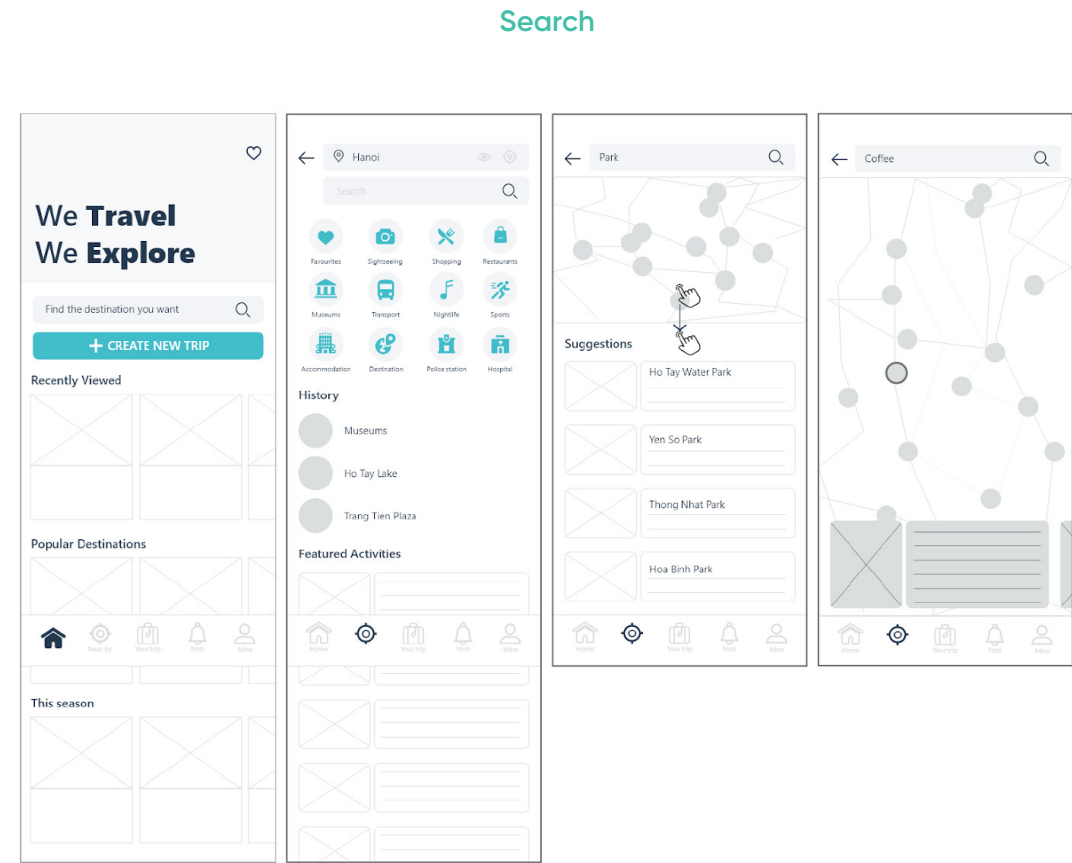
# 3.1

## Buiding the second sitemap

After performing the usability test with the first wireframe, we came up with another sitemap to make links among screens much more logical and help users interact with the app easier.

# 3.2

*Improved wireframes*

## Screen 1 — Reng Reng Coffee

← Reng Reng Coffee ♡

Navigate | Favourite | Add to trip

Reng Reng Coffee
★ 4.7 (25,672 reviews)

The best time to come

Nearby activities

People's choice

Home | Touring | Note | View

## Screen 2 — Hanoi

← Hanoi ♡

Navigate | Favourite | Add to trip

Hanoi

Review score    8

The best time to come

Sightseeing | Shopping | Restaurants | Museums | Accommo

In trip & Favourites

People's choice

## Screen 3 — Login

×

ESPERIE

G+  Continue with Google

f  Continue with Facebook

## Screen 4 — Share GPS

← Share GPS

Location | Position List

Friend's location
Referral code:

Copy

Done

Your location
Your Referral code:

254935    Copy

House | Near by | Your trip | Note

## Screen 5 — New trip

← New trip

Choose destination

Trip name

Your trip date

Accommodation

START TRIP

Home | Near by | Note | Menu

## Screen 6 — Hanoi

← Hanoi ♡

Wed 13 Nov - Sat 16 Nov

Most Booked

The best area

Hoan Kiem District | Dong Da District | Thanh Xuan District | Thanh Xuan District | Hoan Kiem Dis

The best price

## Screen 7 — The Queen Hotel

← The Queen Hotel ♡
★ 4.5 (672 reviews)

Navigate | Favourite | Add to trip

Booking.com    đ1.867.456
đ45.45

SEE AVAILABLE ROOMS

Review score    7.9

Amenities

Hotel Fitness | Free Hotel Parking | Free Hotel Wifi

Address

## Screen 8 — Navigate

← Navigate

đ1.867.456    đ867.456

đ934.456

đ954.456    đ786.456

đ2.000.897

đ994.456    đ1.567.237    đ934.456

đ934.456

đ867.456

đ2.456.897

đ2.056.667

đ994.456

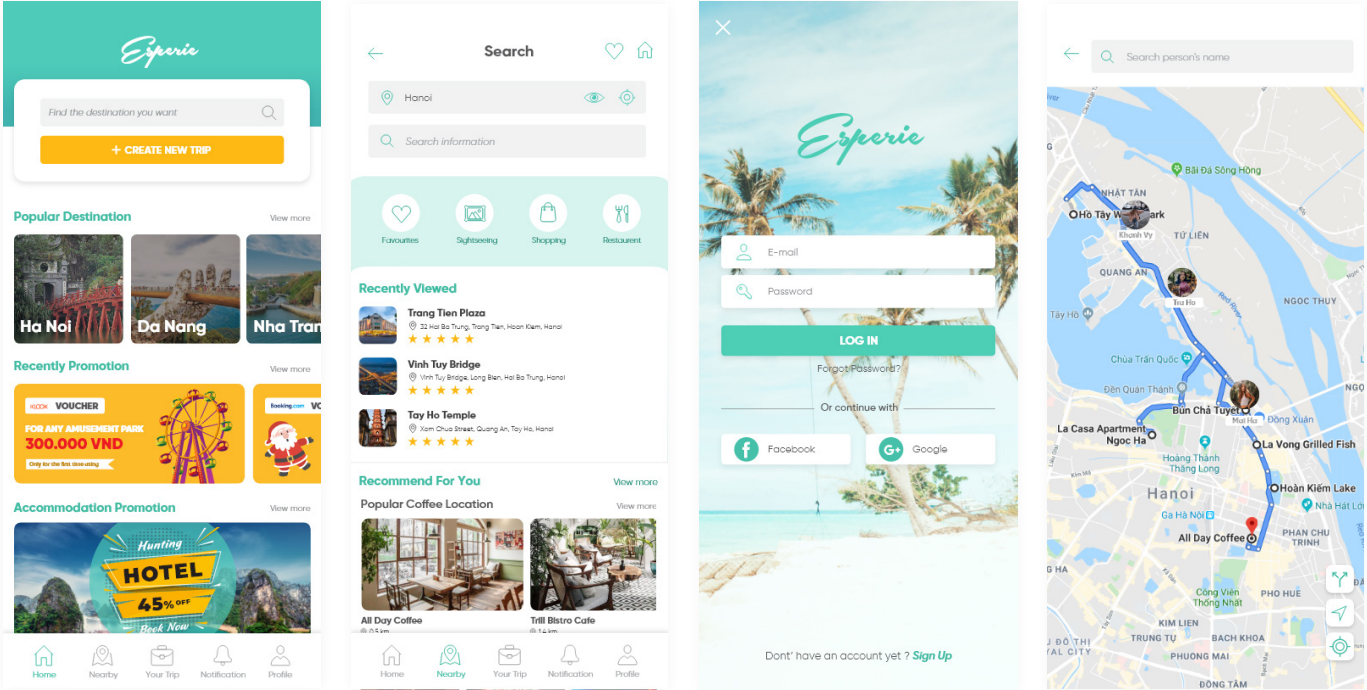## During trip/Notification/Favourite
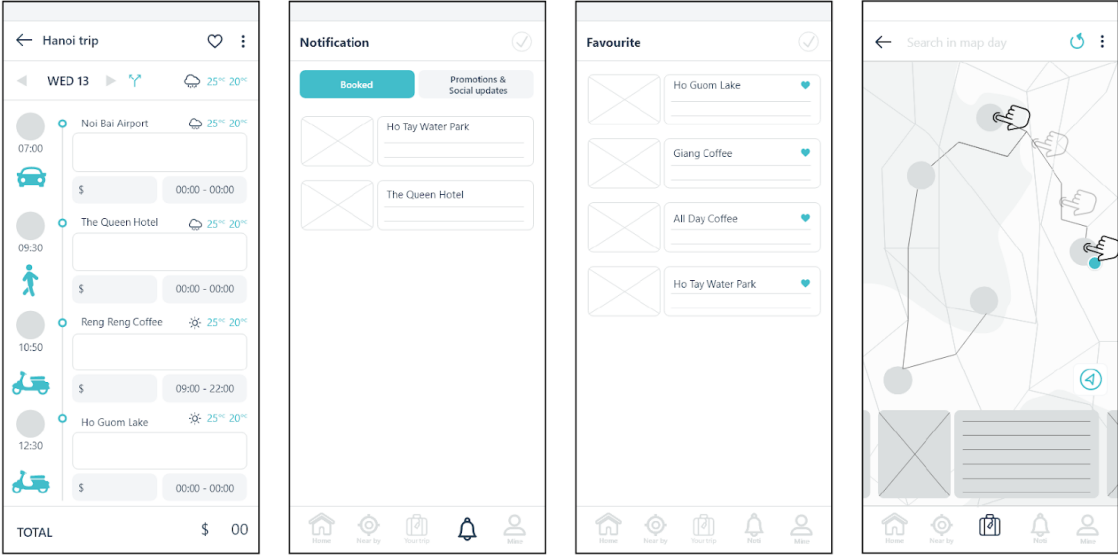
# 4.1
## Design overview

### 4.1.1 Design overview

We begin to design major monitors, then we continue to complete all other interface. Esperie is a travel app, so there will be lots of coloring images, We're trying to create a design that can balance the image that still retains the owner color of the application.



### 4.1.2. Usability Testing 2

We reuse the questionnaire as the first Test and ask the user's sense of the app design interface with five users:

| Participants | Sex | Age | Have experienced? | Interested in traveling experience or self-sufficiency? |
|---|---|---|---|---|
| Chu Anh Ngoc | Female | 24 | Yes | Yes |
| Nguyen Thi Tham | Female | 20 | Yes | Yes |
| Nguyen Tra My | Female | 22 | None | Yes |
| Hoang Minh Duc | Male | 23 | Yes | Yes |
| Pham Thuy Linh | Female | 20 | None | Normal |

And here is the summary table of the user evaluations after our synthesis:

| What we need to know | Results from testers | | | | |
|---|---|---|---|---|---|
| | Ngoc | Tham | My | Duc | Linh |
| Do you see our main functions enough information? | Yes | Yes | | Yes | Yes |
| Is there any function that is redundant and unnecessary? | None, I think it's so ok | No | No, It's so good. | No | Yes, Budget is not required because the information on the tourist location form is limited |
| Are you easy to remember the operation of the main functions? | Yes | Yes | Yes | Yes | May be |
| Does our test provide enough details of the functions for you to understand them? | Yes | Yes | Yes | Yes | Yes, it's enough |
| Are there any stage or functions you feel confused and unsatisfied in the process of using? | No | No | No | No | No |
| When you look at the buttons on the screen, do you easily know and identify its functionality? | Yes | Yes | Yes | Yes | Yes |
| What do you stop when you are performing a task? | No, it's interesting | None | No | No | No |
| Are you satisfied with all of our functions? | It's okay | Yes | Yes | Yes | Yes |
| What do participants think about the overall layout? | It's okay | Clear | Yes | Yes | It's fine |
| Feedbacks and suggestions | Yes | Yes | Design is nice | Yes | I like the color |
| Will you use our apps in the future? | Yes | Yes | Yes | Yes | Yes |

## System Usability Scale (SUS)

| What we need to know | Ngoc | Tham | My | Duc | Linh |
|---|---|---|---|---|---|
| I think that I would like to use this system frequently | Agree | Agree | Strongly agree | Strongly agree | Agree |
| I found the system unnecessarily complex | Strongly disagree | Neutral | Disagree | Neutral | Disagree |
| I thought the system was easy to use | Neutral | Agree | Neutral | Agree | Agree |
| I think that I would need the support of a technical person to be able to use this system | Disagree | Disagree | Strongly disagree | Neutral | Strongly disagree |
| I found the various functions in this system were well integrated | Agree | Strongly agree | Agree | Agree | Strongly agree |
| I thought there was too much inconsistency in this system | Disagree | Strongly disagree | Neutral | Strongly disagree | Disagree |
| I would imagine that most people would learn to use this system very quickly | Agree | Neutral | Agree | Strongly agree | Neutral |
| I found the system very cumbersome to use | Strongly disagree | Neutral | Disagree | Strongly disagree | Neutral |
| I felt very confident using the system | Agree | Strongly agree | Neutral | Agree | Neutral |
| I needed to learn a lot of things before I could get going with this system | Disagree | Disagree | Strongly disagree | Disagree | Neutral |

## System Usability Scale (SUS) (convert to points)

| What we need to know | Ngoc | Tham | My | Duc | Linh |
|---|---|---|---|---|---|
| I think that I would like to use this system frequently | 4 | 4 | 5 | 5 | 4 |
| I found the system unnecessarily complex | 1 | 3 | 2 | 3 | 2 |
| I thought the system was easy to use | 3 | 4 | 3 | 4 | 4 |
| I think that I would need the support of a technical person to be able to use this system | 2 | 2 | 1 | 3 | 1 |
| I found the various functions in this system were well integrated | 4 | 5 | 4 | 4 | 5 |
| I thought there was too much inconsistency in this system | 2 | 1 | 3 | 1 | 2 |
| I would imagine that most people would learn to use this system very quickly | 4 | 3 | 4 | 5 | 3 |
| I found the system very cumbersome to use | 1 | 3 | 2 | 1 | 3 |
| I felt very confident using the system | 4 | 1 | 3 | 4 | 3 |
| I needed to learn a lot of things before I could get going with this system | 2 | 2 | 1 | 2 | 3 |

Here is the way to calculate SUS scores:
-For each of the odd numbered questions, subtract 1 from the score.
-For each of the even numbered questions, subtract their value from 5.
-Take these new values, and add up the total score. Then multiply this by 2.5.

## USABILITY TESTING SUMMARY

According to the result, our app gets the average point of 73,5. This can be considered a good result, but we still need to improve it further.
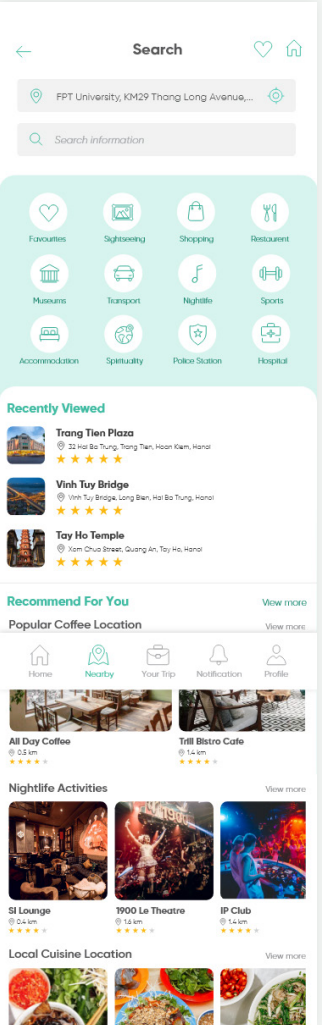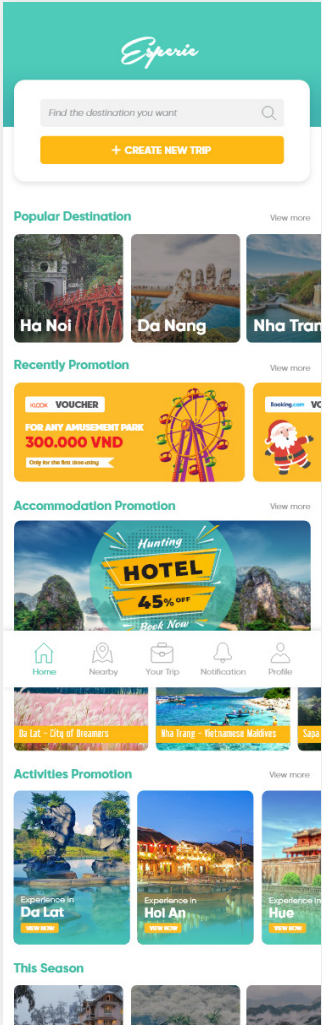
Conclusion:
-The comments are quite positive
-Interface Design highlights, impressive, consistent with the style of travel.
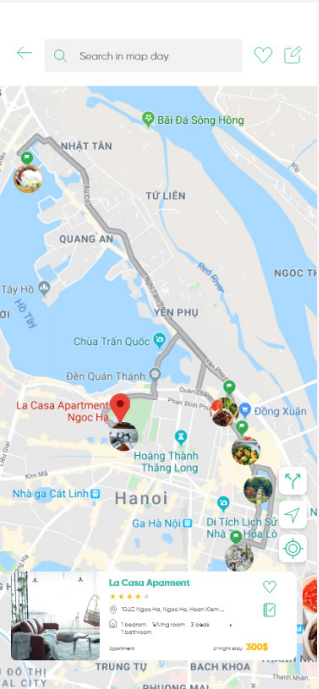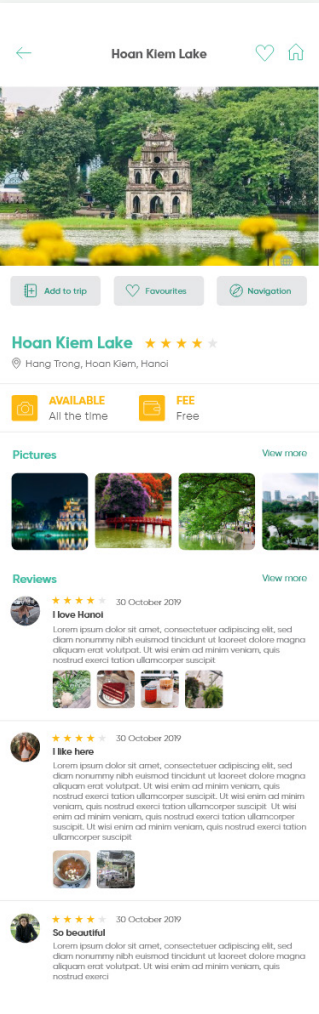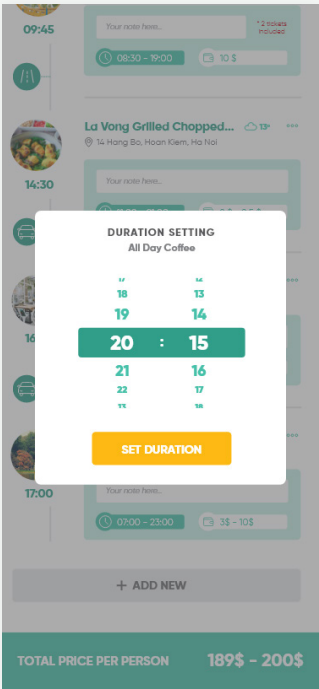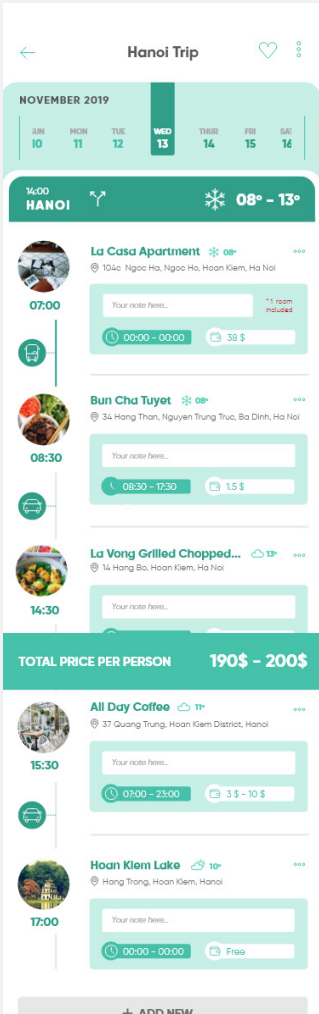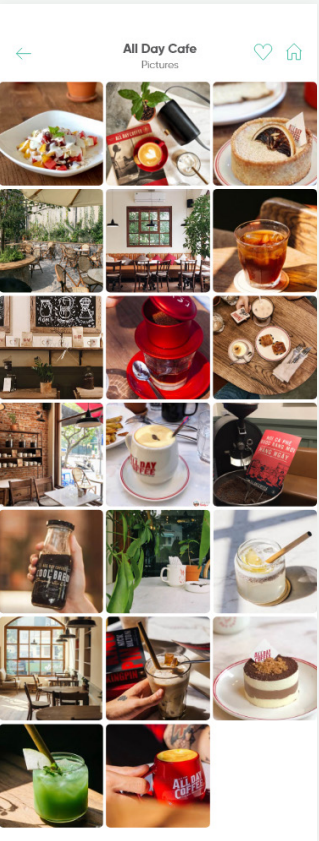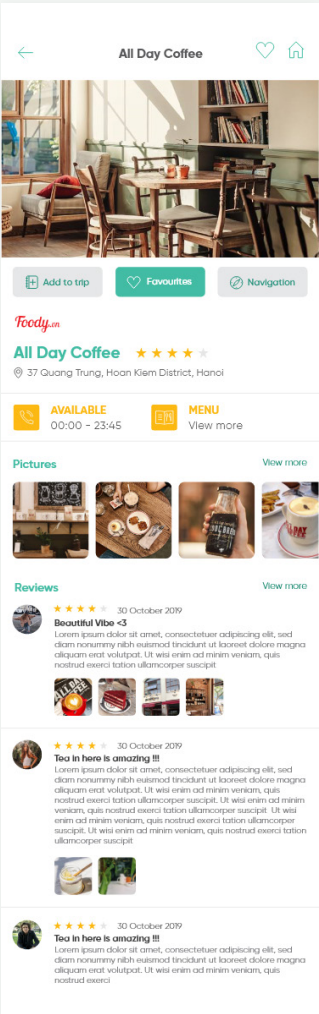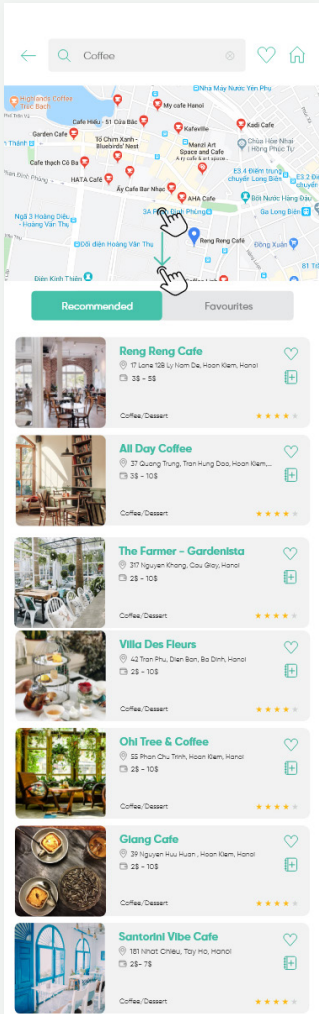-Clean and logical design layout.

# 4.2
## Design finalization

Through this project, we have truly experienced the process of making ideas from coming up with the current completion of an application. From the experience and feedback of the users, we have chosen to filter and bring the best for our application. Finally, we ended up with the value of the add-on that gives our users and our own. With Tiffany blue and yellow accents in the design create inspiration for the tourists.

The end