



TRƯỜNG ĐẠI HỌC FPT

Capstone project presentation

Travel with Locals



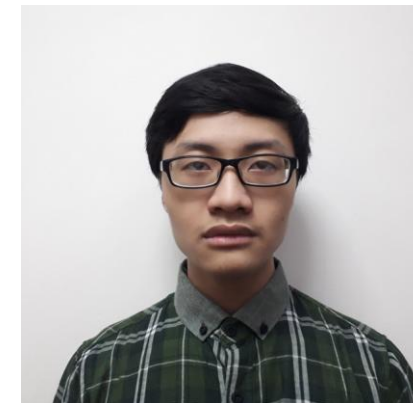
Supervisor: Mr. Dao Trong Duy

Nguyen Gia Dang
Team member



Nguyen Duc Dung
Team member

Tran Hoang Long
Team member



Hoang Hai
Team member

Pham Tung Duong
Team leader





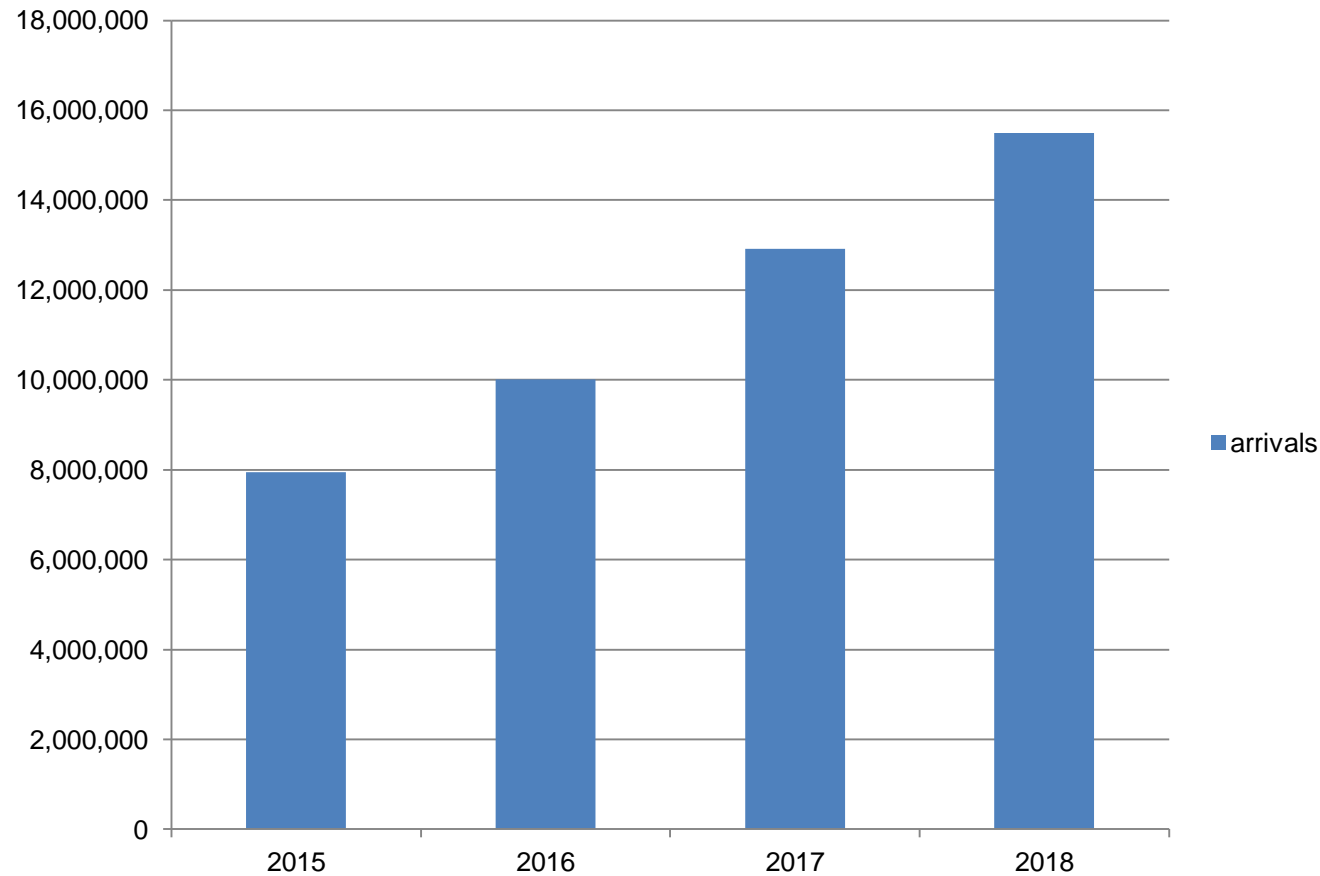
Table of Contents

1. Project Overview
2. Project Management
3. Requirement Specification
4. Software Design
5. Testing

Project Overview

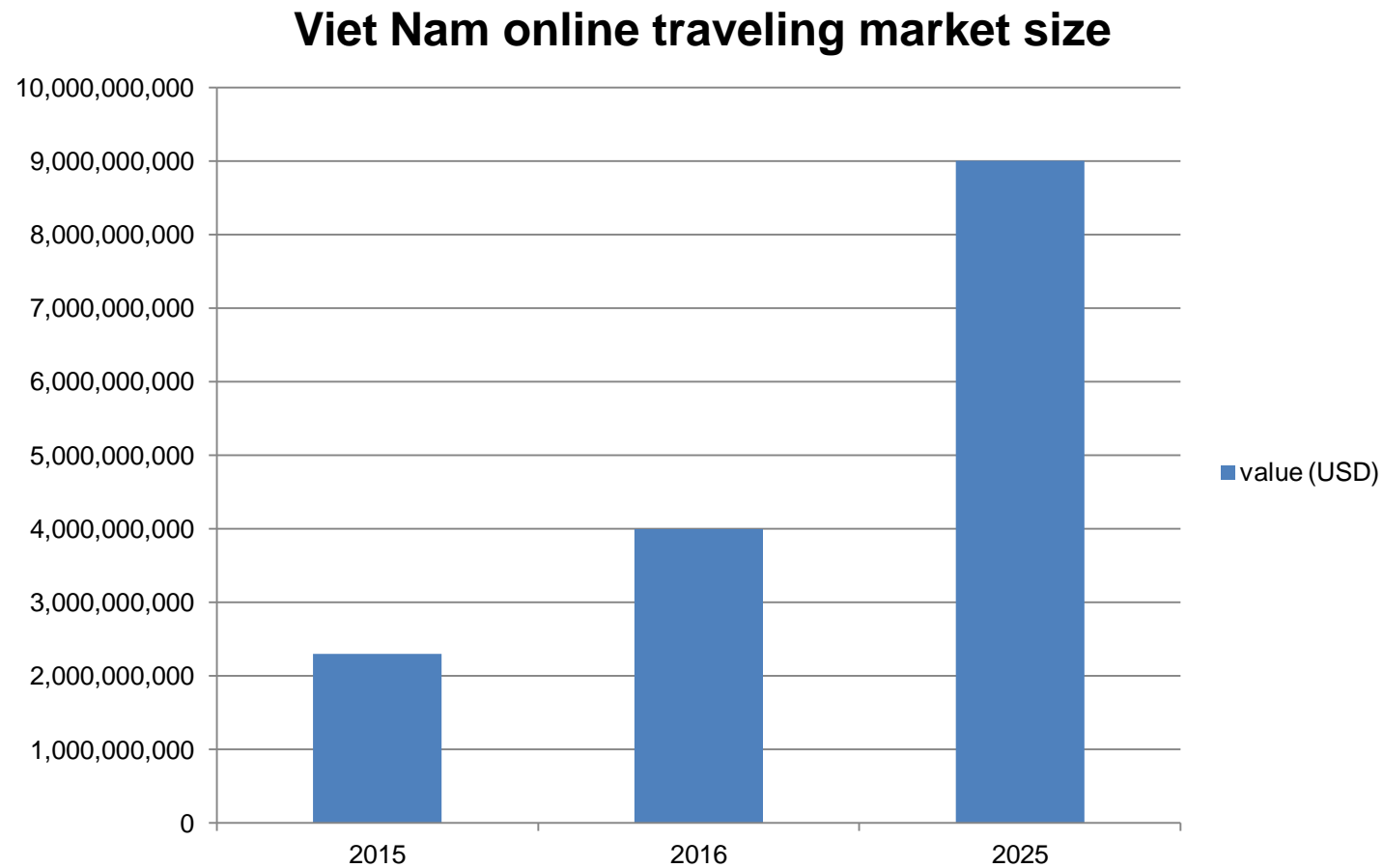
Background

International visitors to Viet Nam



- The number of International visitors to Viet Nam .

Background



- Viet Nam online traveling market size.

Existing Systems

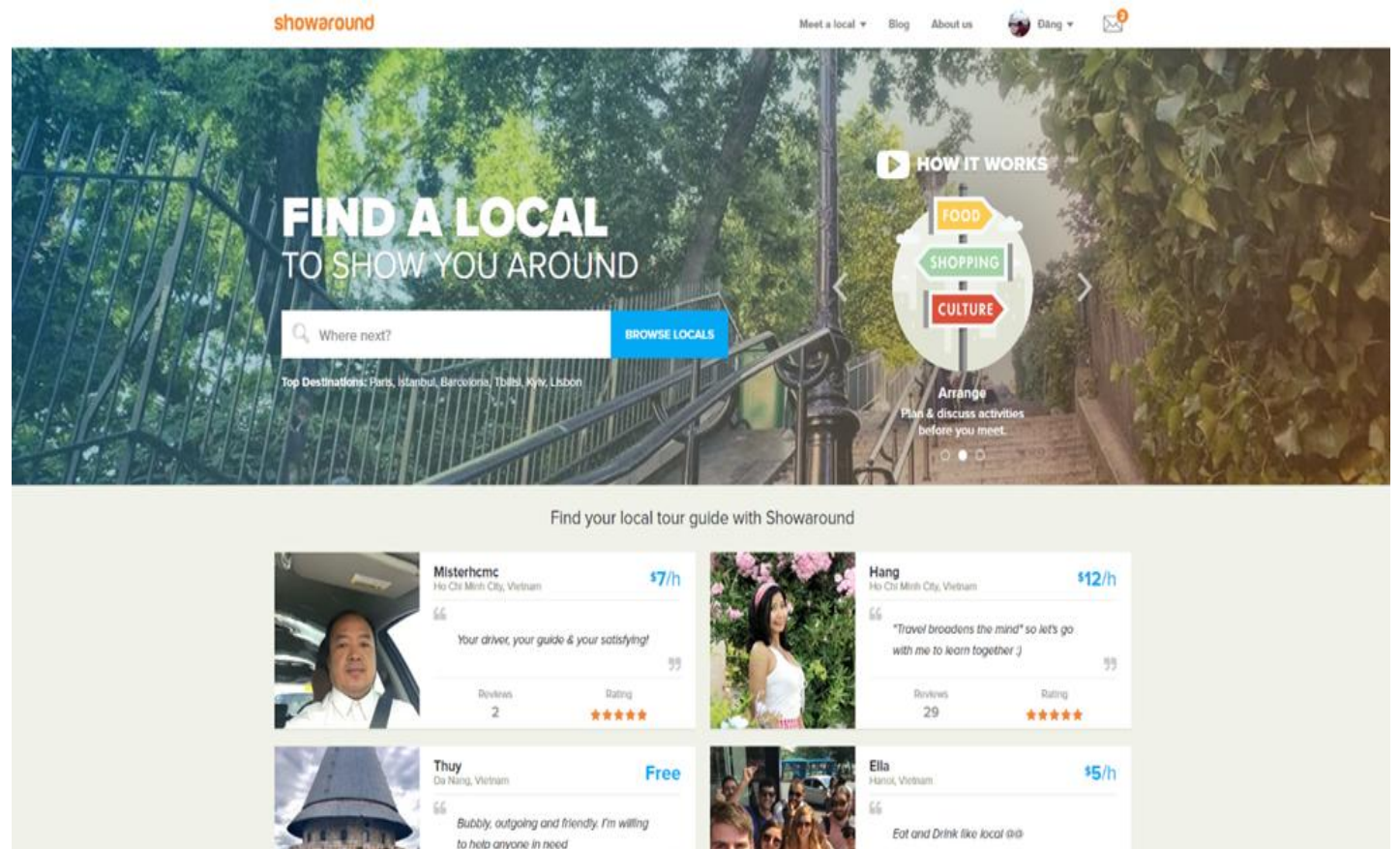
Showaround.com

— Advantages

- Large network of guider, easy to become a guider.
- Function and interface focus on guider.

— Disadvantages

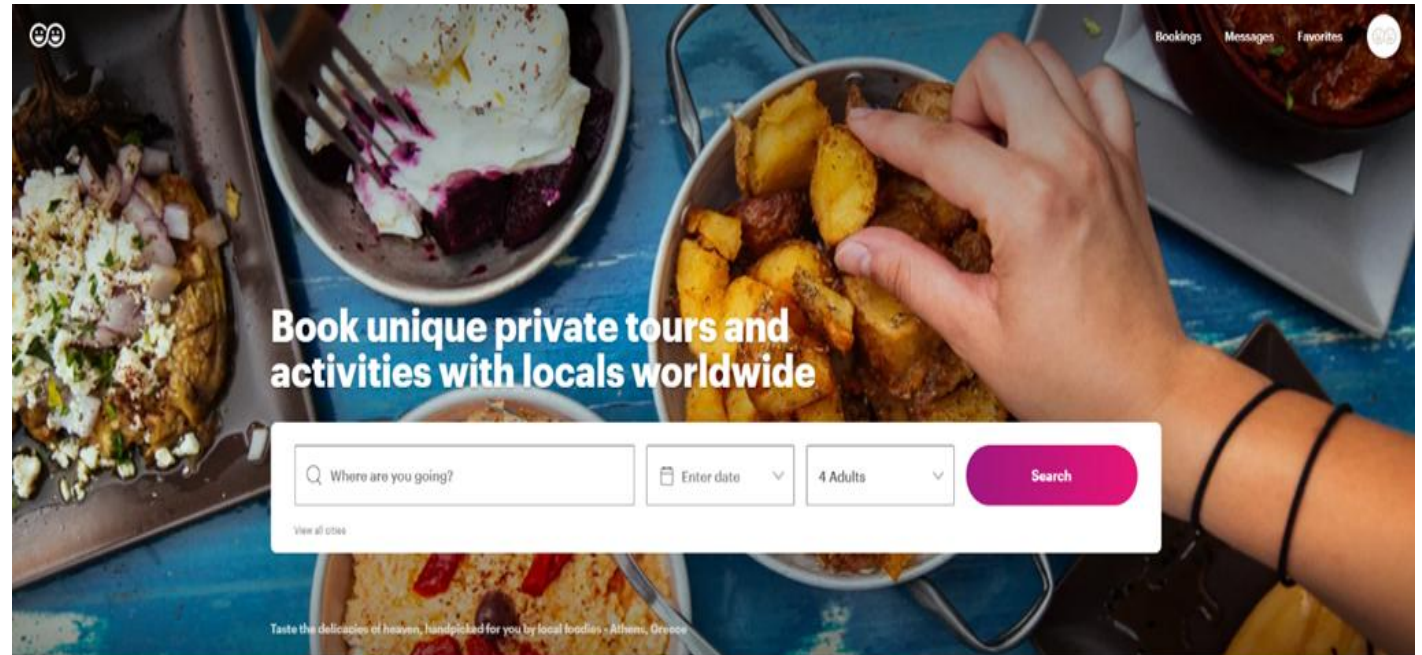
- Not provide clear about what traveler would take.
- Guider verification is not carefully in term of legal and identification.



Existing Systems

Withlocals.com

- Advantages
 - Trips are attached with guider, transparent information and process.
 - Be able to customize trip.
 - Mobile app supported.
- Disadvantages
 - No direct contact with guiders before payment.
 - Not target on Viet Nam market.

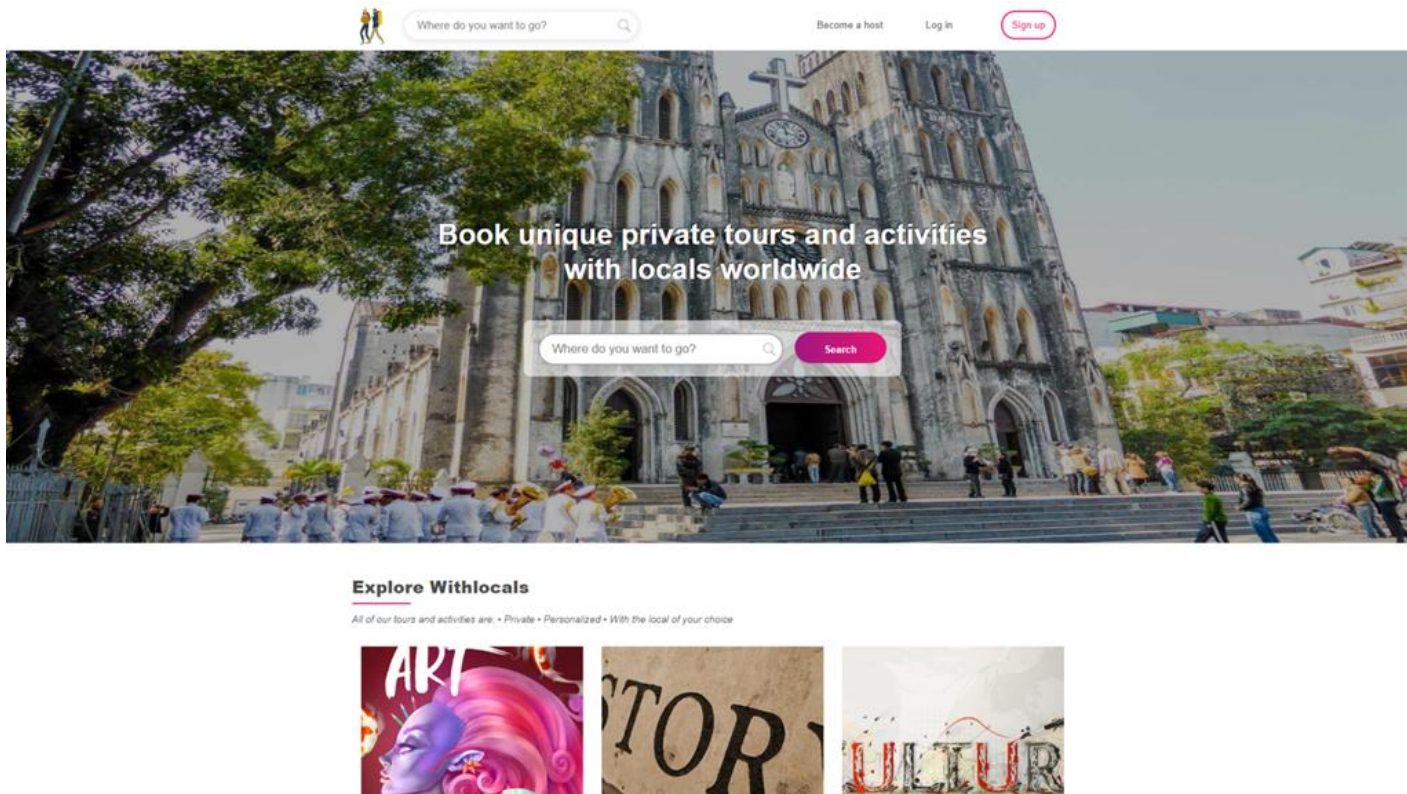


Explore Withlocals

All of our tours and activities are: • Private • Personalized • With the local of your choice



Proposed System

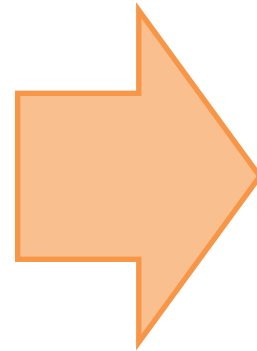


TWL website support travelers to find appropriate local guiders who they think would satisfy their exploration spirit . Travelers will easily find, communicate and find out whether a guider qualified as they like. It is important that Travelers can trust our verified Guiders. Specially, our Guides are recruited to serve foreign who travel in Viet Nam.

Main Features



Traveler



Searching



Save



Review

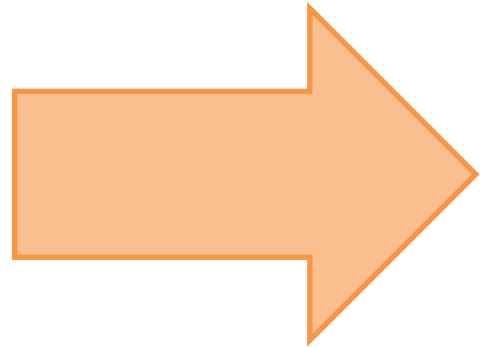


Booking

Main Features



Guider



Manage post



Manage trips

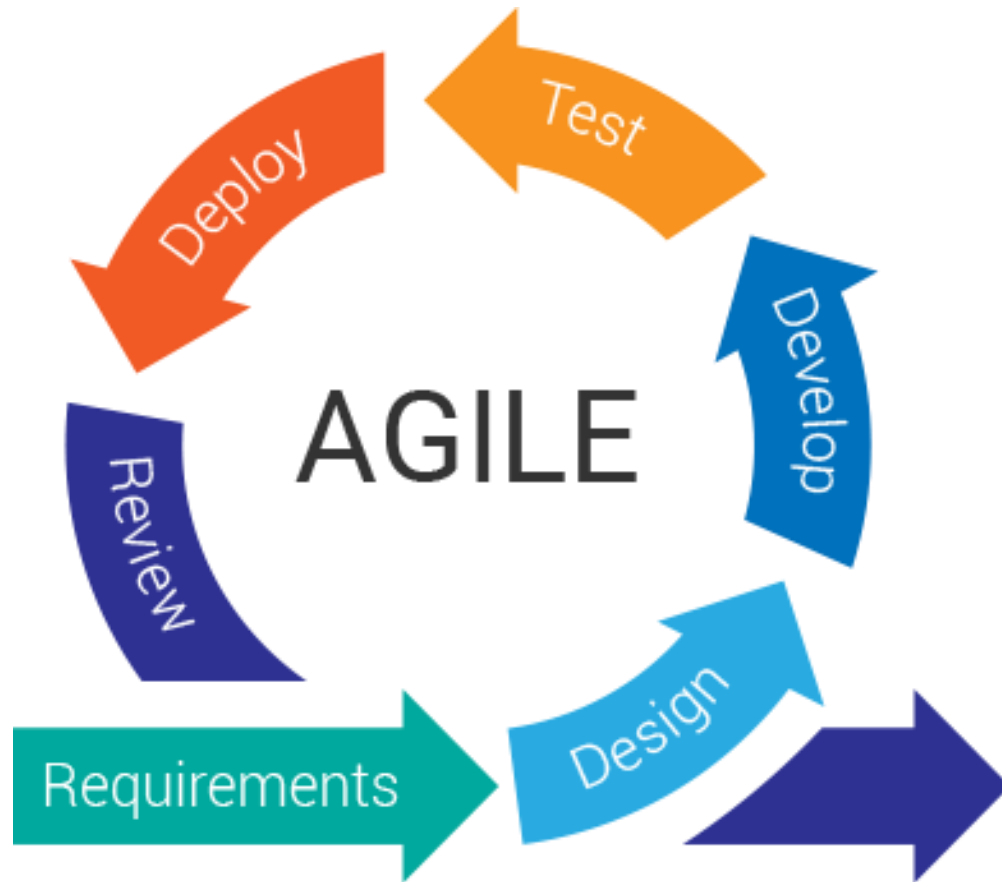
Out of Scope

- Pay for guiders: TWL system does not take responsibility to make payment for guiders.



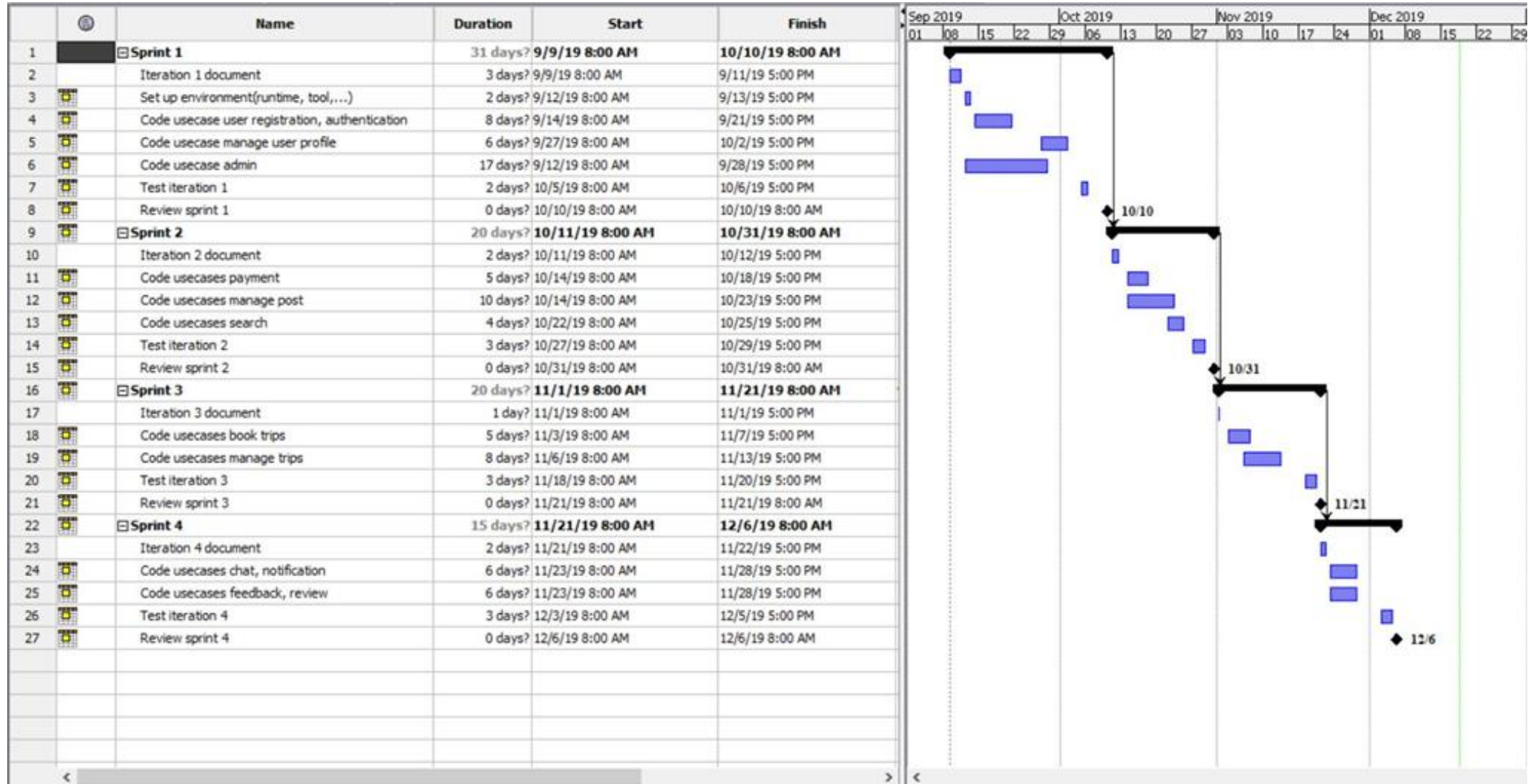
Project Management

Software Development Process



Task management

Gantt chart



Tools and Techniques

IDEs	Visual Studio Code, IntelliJ
Project management tools	Asana, ProjectLibre
Document tools	Microsoft Office
UML tools	Draw.io
Design tools	Figma.com
Testing tools	Postman, Swagger
Communication tools	Skype, Facebook, Phone
Deployment server	PostgreSql, MongoDB
Database management tools	pgAdmin4, MongoDB Compass
Source code version control	Github
File management tools	Google Drive

Communication Management

Work together: Every Tuesday and Thursday.

Communication:



Meeting with supervisor: Once a week

Risk Management

Risk register

No	Risk description	Category	Root cause	Avoidance plan	Impact
R1	Poor defining scope, ambiguous definition	Scope	Poor business analysis	Team meeting, consult supervisor, investigate solution of similar system	High
R2	Low motivation among team member	Organizational	Different motivation among member	Create team building activity	High
R3	Have a technical block path or unfixable bug	Technical	Lacking experience of technical.	Consult supervisor, find alternative technology	High
R4	Requirement changed while project is being processed	Scope	Different opinion between team member while implementing	Team meeting and consult supervisor to consider change.	High
R5	Team member misunderstands requirement	Scope	Poor communicate process	discuss with BA, read requirement specification carefully	Low
R6	Fail for estimating iteration time	Time	Lacking of predict work process	Working overtime to keep up work	Medium

Requirement Specification



```

    usecaseDiagram
        actor Guest
        actor Traveler
        actor Guider

        Guest --> UC1(Search Guider by name)
        Guest --> UC2(Search posts by location)
        Guest --> UC3(View list posts)
        Guest --> UC4(View Guider's information)
        Guest --> UC5(View post detail)

        Traveler --> UC6(Save Favorite Post)
        Traveler --> UC7(Book trips)
        Traveler --> UC8(Manage trips)
        Traveler --> UC9(Pay for trips)
        Traveler --> UC10(Refund)
        Traveler --> UC11(Cancel Trips)
        Traveler --> UC12(Review and Rate after trips)
        Traveler --> UC13(View List of booked trips)

        Guider --> UC14(Edit Post Content)
        Guider --> UC15(Create Post)
        Guider --> UC16(Manage Posts)
        Guider --> UC17(View reviews on travelers)
        Guider --> UC18(View schedule)
        Guider --> UC19(Manage traveler's trip booking)
        Guider --> UC20(View revenue)
        Guider --> UC21(Review travelers)

        UC6 -.-> UC5 : Extend
        UC7 -.-> UC5 : Extend
        UC7 -.-> UC9 : Include
        UC7 -.-> UC10 : Include
        UC8 -.-> UC11 : Extend
        UC8 -.-> UC12 : Extend
        UC8 -.-> UC13 : Extend
        UC14 -.-> UC16 : Extend
        UC15 -.-> UC16 : Extend
        UC19 -.-> UC18 : Extend
        UC19 -.-> UC20 : Extend
        UC19 -.-> UC21 : Extend
    
```

The diagram illustrates the functional requirements of a travel management system, organized by user roles (Guest, Traveler, Guider) and their interactions with specific use cases. The use cases are represented by ovals, and actors by stick figures. Solid lines indicate primary associations, while dashed lines with arrows indicate specific types of relationships like 'Extend' or 'Include'.

- Guest Actor:**
 - Search Guider by name
 - Search posts by location
 - View list posts
 - View Guider's information
 - View post detail
- Traveler Actor:**
 - Save Favorite Post (Extends View post detail)
 - Book trips (Extends View post detail; Includes Pay for trips and Refund)
 - Manage trips (Extends Cancel Trips, Review and Rate after trips, and View List of booked trips)
 - Pay for trips (Included by Book trips)
 - Refund (Included by Book trips)
 - Cancel Trips (Extended by Manage trips)
 - Review and Rate after trips (Extended by Manage trips)
 - View List of booked trips (Extended by Manage trips)
- Guider Actor:**
 - Edit Post Content (Extends Manage Posts)
 - Create Post (Extends Manage Posts)
 - Manage Posts
 - View reviews on travelers
 - View schedule
 - Manage traveler's trip booking (Extends View List of booked trips, Accept/ Cancel a trips, and Review travelers)
 - View revenue
 - Review travelers (Extended by Manage traveler's trip booking)

Function Requirements - Guest

- Registration
- Find Guiders
- Find posts

The travel is most appreciated



Function Requirements - Traveler

- Communicate with Guider
- Book trips
- Manage their trips

This is plan

Check out the plan below to see what you'll get up to with your local host.


Feel free to personalize this offer.

- Meeting point**
Curry 36 - Berlin
- Classic Currywurst**
Try it from a place with 35 years of tradition that became a culinary Berliner institution.
- Schaumkuss**
Try a delicious sweet treat
- A sweet Berliner (Pfannkuchen)**
A Withlocals favorite that you will not forget!
- Leberkäse mit Semmel**
A hearty portion of a German specialty

Chat

Hello can i help you !:)

Bob Luke




★★★★★

Pick Date Start:

Time Start: Time End:

Estimate trip duration: 3 hours

 1 Adults and 0 children

Adults

Children

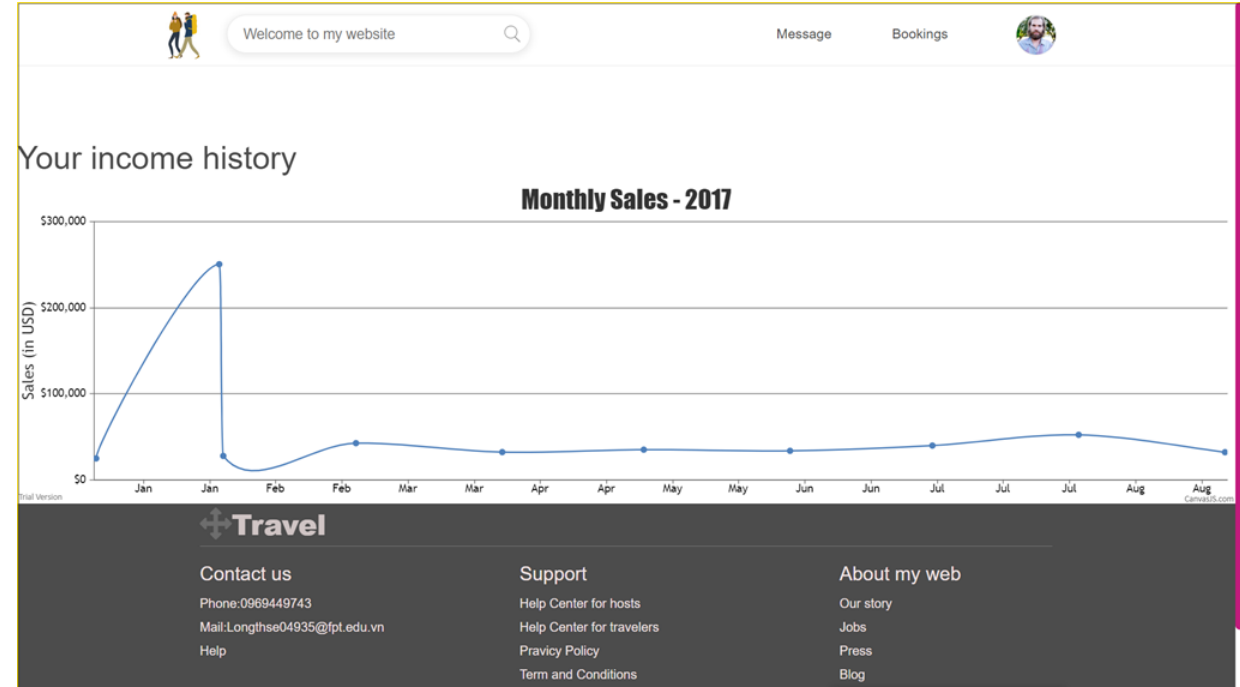
Adults price: \$30

Children price: \$15

Amount: \$30

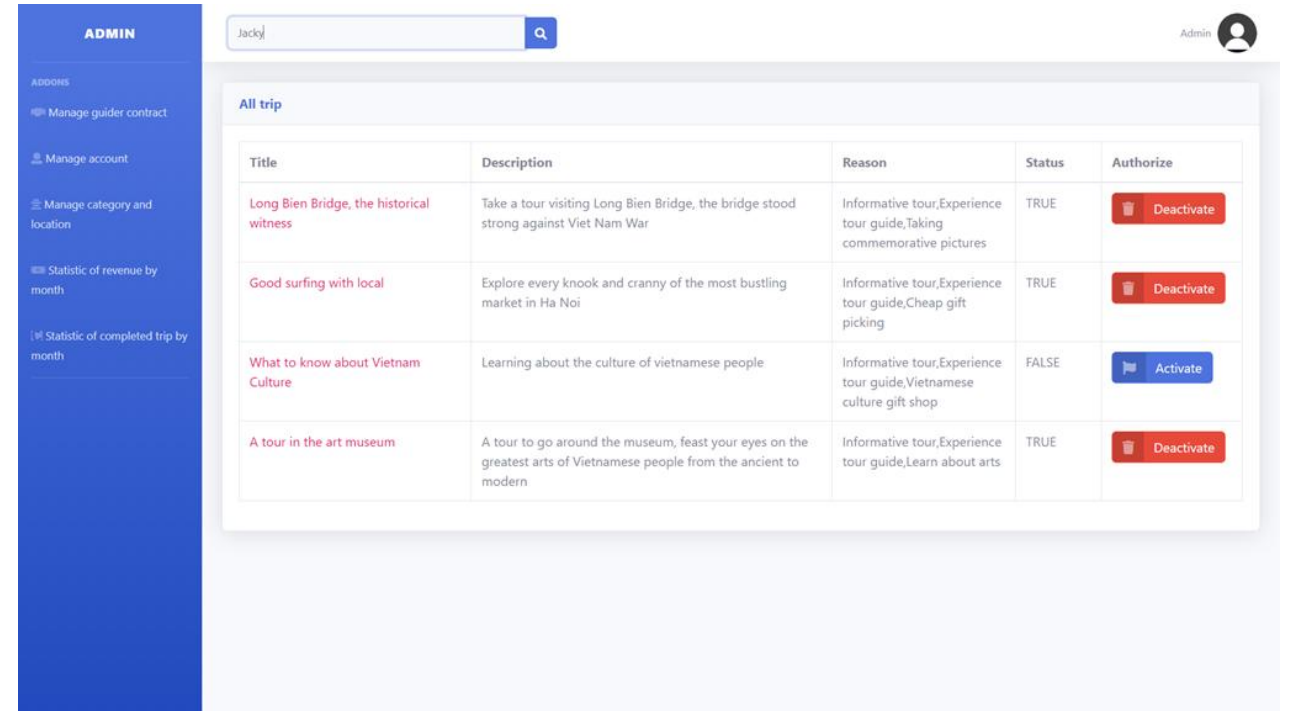
Function Requirements - Guider

- Manage posts
- Communicate with Travelers.
- Manage trips.



Function Requirements - Admin

- Management account
- View statistics



The screenshot displays an Admin dashboard with a blue sidebar and a white main content area. The sidebar contains the following menu items:

- ADMIN
- ADDONS
- Manage guider contract
- Manage account
- Manage category and location
- Statistic of revenue by month
- Statistic of completed trip by month

The main content area features a search bar with the text "Jacky" and a magnifying glass icon. Below the search bar, there is a section titled "All trip" containing a table with the following data:

Title	Description	Reason	Status	Authorize
Long Bien Bridge, the historical witness	Take a tour visiting Long Bien Bridge, the bridge stood strong against Viet Nam War	Informative tour, Experience tour guide, Taking commemorative pictures	TRUE	<button>Deactivate</button>
Good surfing with local	Explore every knook and cranny of the most bustling market in Ha Noi	Informative tour, Experience tour guide, Cheap gift picking	TRUE	<button>Deactivate</button>
What to know about Vietnam Culture	Learning about the culture of vietnamese people	Informative tour, Experience tour guide, Vietnamese culture gift shop	FALSE	<button>Activate</button>
A tour in the art museum	A tour to go around the museum, feast your eyes on the greatest arts of Vietnamese people from the ancient to modern	Informative tour, Experience tour guide, Learn about arts	TRUE	<button>Deactivate</button>

Non-Functional Requirements



Usability

- TWL web interface is designed clearly, simply, monolithically and easy to get on.
- All the texts and messages are informed friendly and clearly with instruction.



Security

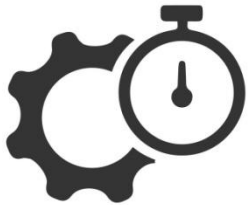
- User account is secured by TWL system.
- User password is encrypted.
- Http request is secured by token.

Non-Functional Requirements



Availability

- The website should be available anytime users want to use it.
- User can access everywhere from their computer with internet connection.



Performance

- TWL website load time is expected to less than 10 seconds in standard network environment.
- Response to user interact is expected to less than 5 seconds in standard network environment.

Non-Functional Requirements

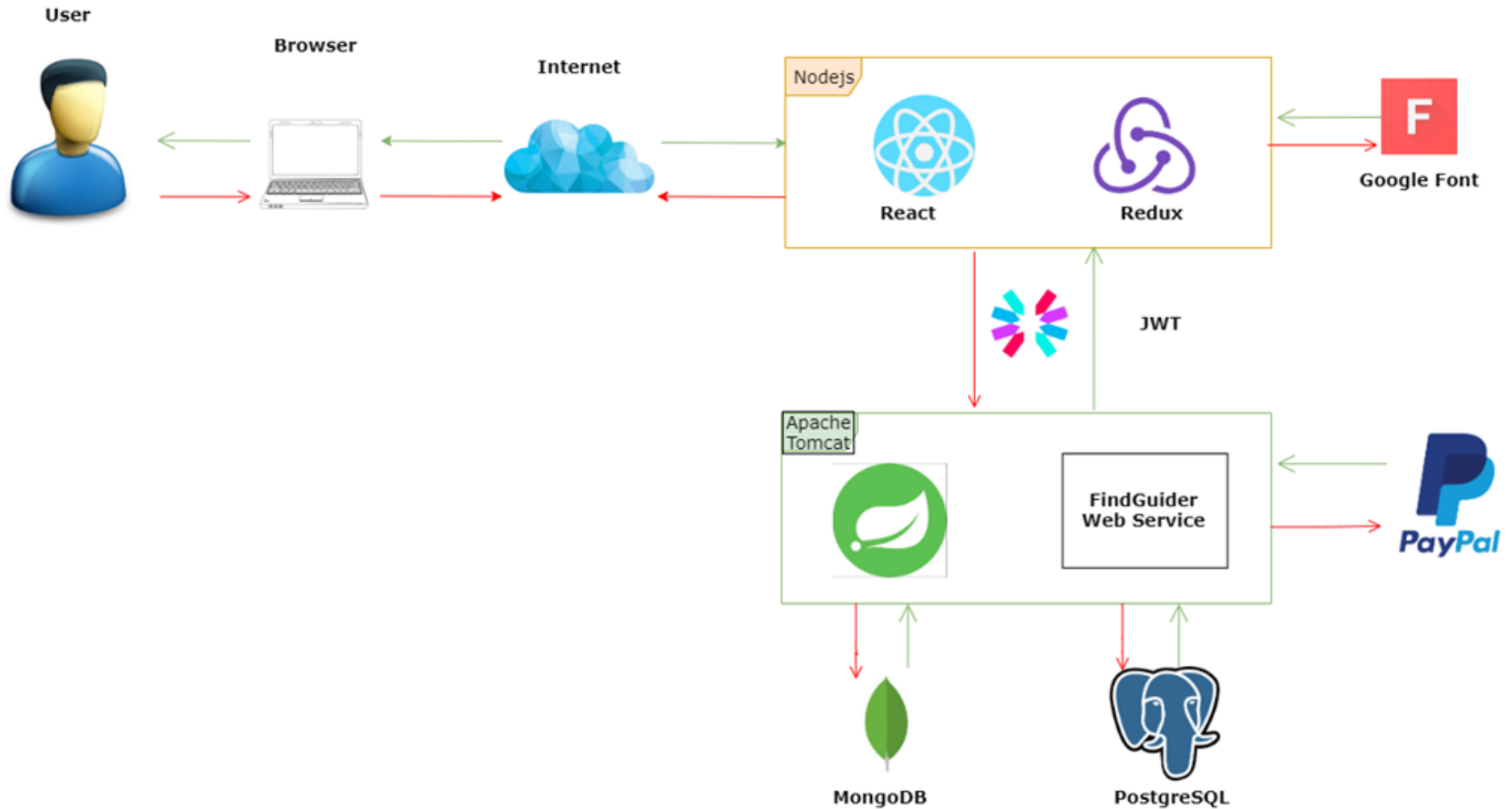


Maintainability

- The application use popular and reliable technology, that keep maintenance cost low.
- The application can be easy to extend new functionality.

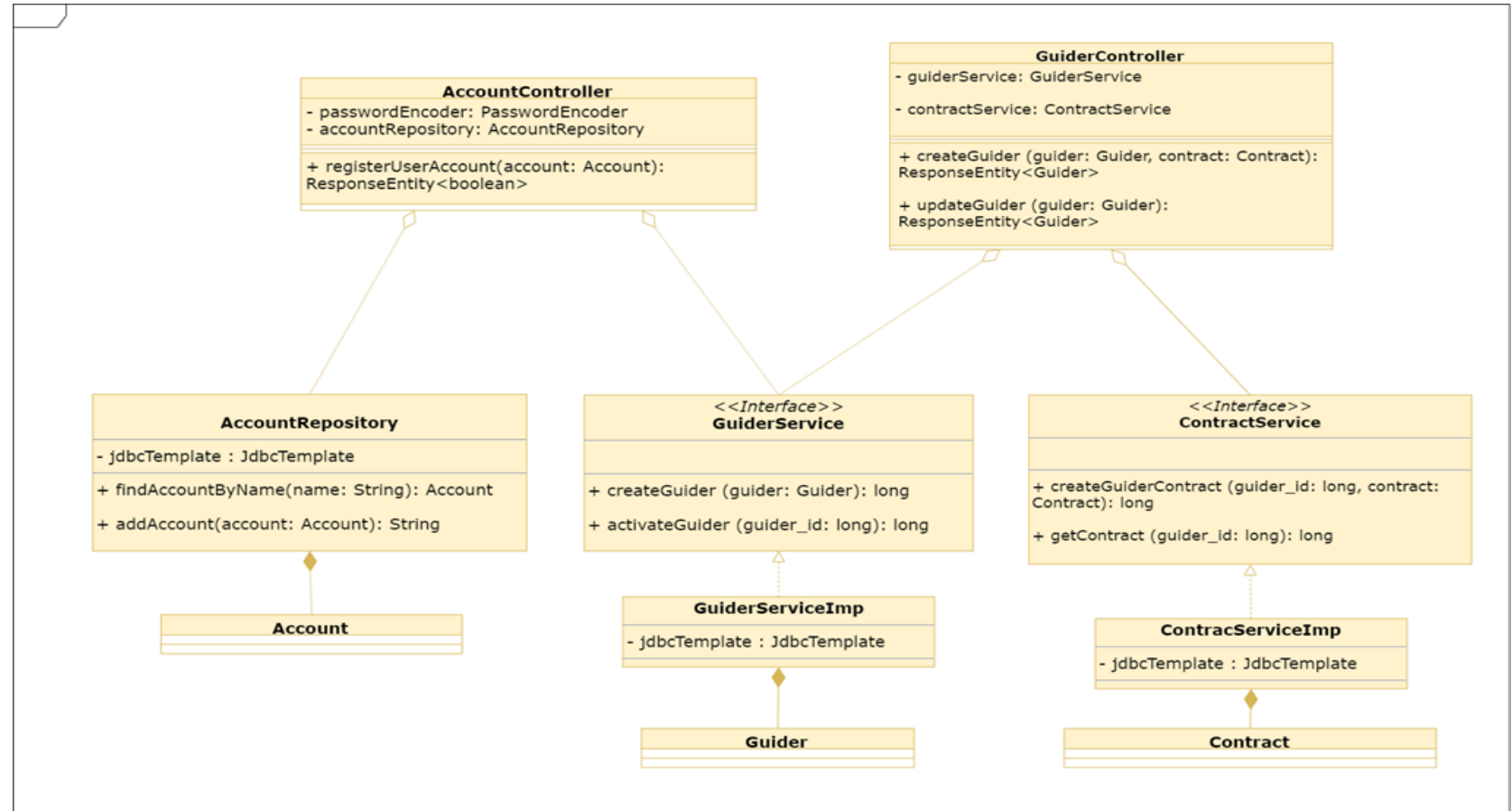
Software design

System Architecture



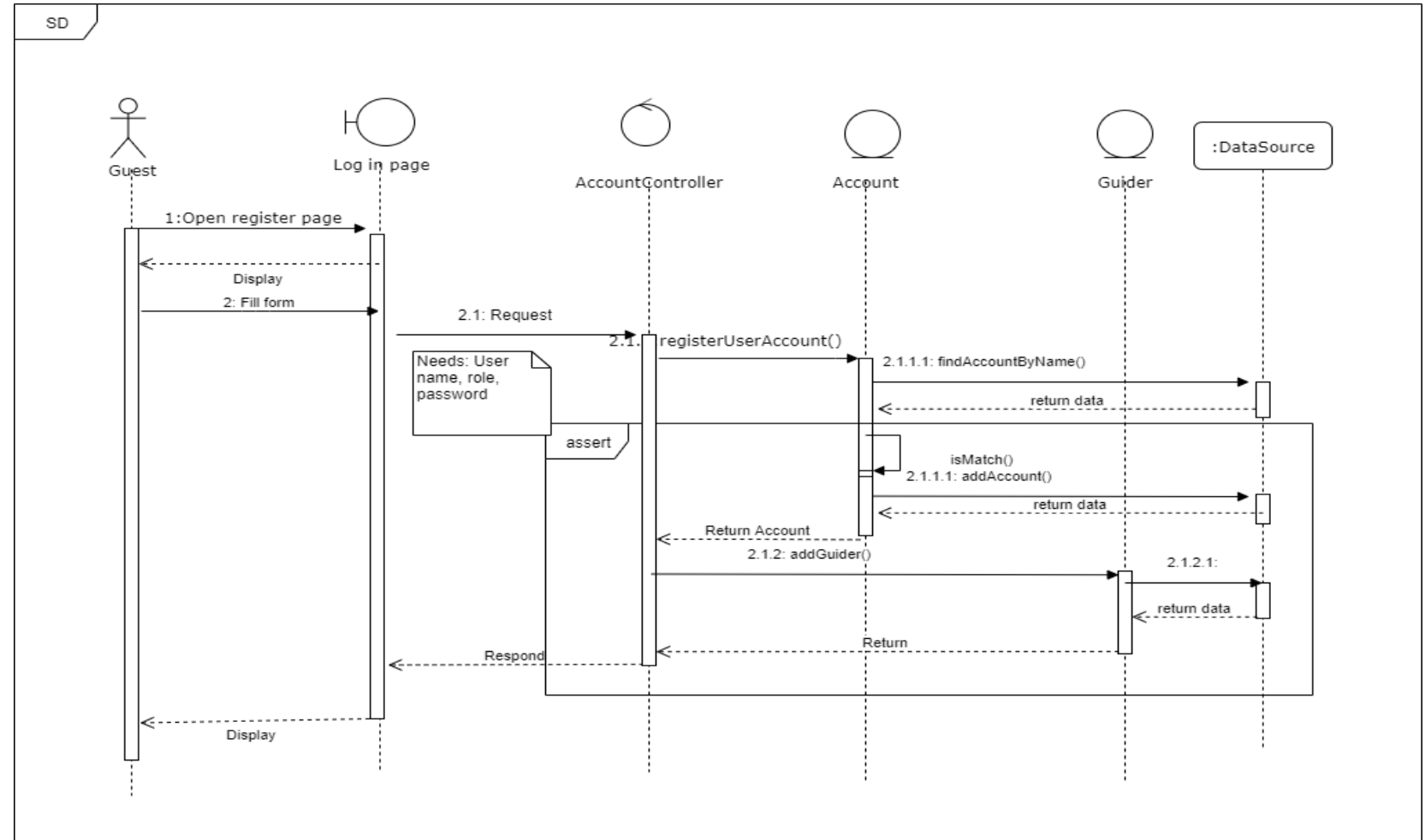
Class Diagram Example

Class diagram for “Sign up a guider account”



Sequence Diagram Example

Sequence Diagram for
“Sign up a guider account”

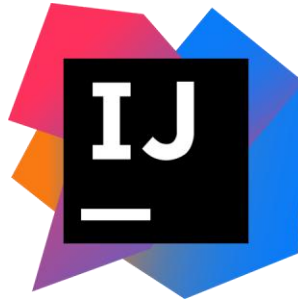


Testing

Testing Tools



Google Sheet
(for log bug)



Android Studio
(for Unit test)



Microsoft Excel
(for write test report)



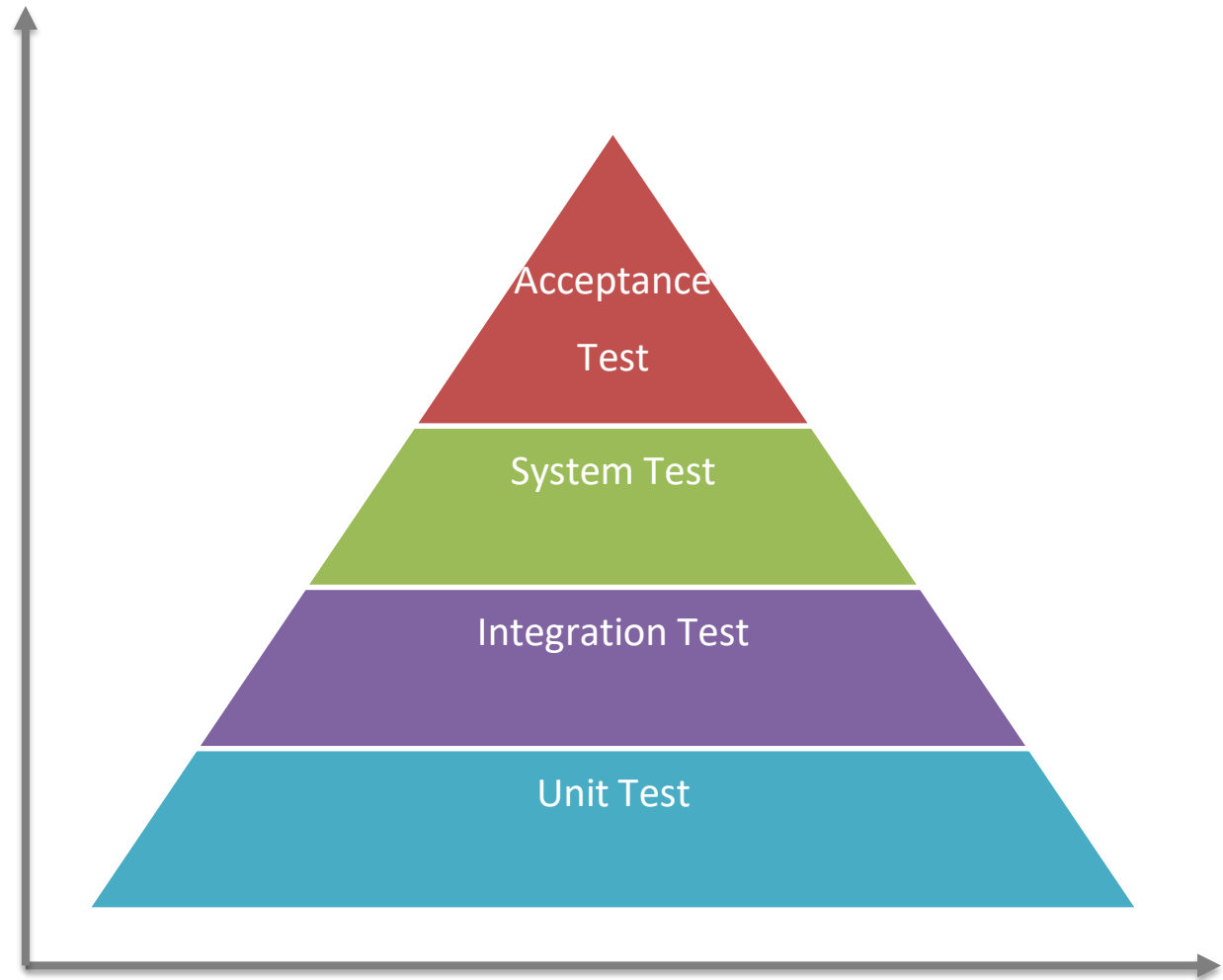
Google Chrome v68



Safari v11

Test Levels

4 Level
Tests



Test Types

Test Type	Test Level			
	Unit Test	Integration Test	System Test	User Acceptance Test
Unit testing	✓	✓	✓	
Regression testing	✓	✓	✓	
Functional testing		✓	✓	✓
GUI testing			✓	✓

Unit Test

Number of Test Cases:

- Controller : 181
- Service : 153

Passed:

- Controller : 181
- Service : 153

Failed:

- Controller : 0
- Service: 0

Cover :

- Controller: 99%
- Service: 94%



Integration Tests

No	Module code	Pass	Fail	Untested	N/A	Number of test cases
1	Guest	83	0	0	0	83
2	Admin	96	0	0	0	96
3	Guider	182	0	0	0	182
4	Traveler	122	0	0	0	122
	Sub total	483	0	0	0	483

Test report

System Tests

No	Module code	Pass	Fail	Untested	N/A	Number of test cases
1	Guest	3	0	0	0	3
2	Admin	14	0	0	0	14
3	Guider	14	0	0	0	14
4	Traveler	8	0	0	0	8
	Sub total	39	0	0	0	39

Test report

Acceptance Test

A	B	C	D
No	Test	Yes	No
1	Can guest sign up as a traveler ?	x	
2	Can guest sign up as a guider ?	x	
3	Can traveler recover forgotten password ?	x	
4	Can guider recover forgotten password ?	x	
5	Can guider login ?	x	
6	Can traveler login ?	x	
7	Can admin login ?	x	
8	Can user search for guiders by name ?	x	
9	Can user search for post by location name ?	x	
10	Can user view list posts of a guider ?	x	
11	Can user view list posts of a category ?	x	
12	Can user view detail of a post ?	x	
13	Can traveler or guider receive notifications ?	x	
14	Can traveler change password ?	x	
15	Can guider change password ?	x	
16	Can traveler logout ?	x	
17	Can guider logout ?	x	
18	Can admin logout ?	x	
19	Can guider add a new post ?	x	
20	Can guider edit a post ?	x	
21	Can guider edit their profile ?	x	
22	Can guider chat with travelers ?	x	
23	Can guider view list of booked trip ?	x	
24	Can guider accept a trip booking ?	x	
25	Can guider refuse a trip booking ?	x	
26	Can guider cancel a trip booking ?	x	
27	Can guider view a traveler's review ?	x	
28	Can guider view their schedule ?	x	
29	Can guider review a traveler ?	x	