



TEKNOFEST

AEROSPACE AND TECHNOLOGY FESTIVAL

TOURISM TECHNOLOGIES COMPETITION

PROJECT DETAIL REPORT

Contents

1. Project Team / Project Summary (Project Description) (5 Points)

Our team “tech expedition” hopes to help people journeys related to various purposes to another country more comfortable and convenient first member of our team took the responsibility of leading the team and along with another member held the responsibility of graphic designing the other member of the team were responsible for web development. We have researched on the problems, requirements and promotion of travelling and tourism specially during the difficult time period where people remain unsure and hesitant to travel due to the increase and decrease in the cases of covid-19 and the imposition and easiness of restrictions for traveling all over the world.

The rapid deployment of mobile computing technologies has enormous potential to provide access to various services at any time and from anywhere. The mobile phone provides wider functionality than a simple call. It accesses applications and services via an Internet connection or by building stand-alone applications. Mobile devices contribute to the development of tourism by allowing the user to access Internet content or specific tourist information from an installed mobile application. Our tourism applications use the latest technology to improve quality, with the goal of meeting the specific user requirements.

We plan on providing tourists and travelers with a leisure and comfortable time during their stay through numerous features which include the basic necessity for a traveler like hotel with best services according to their budget and requirements, public and private transport services, restaurants, prayer areas and mosques, nearest hospital, police station, fire station and an accurate map which would include voice assistance in ones native language. Convenient to use language translators, currency exchange, weather forecast and along with that if one wishes to make their own food we provide detailed recipes of various kind of food which would be included to make travelling easier

A detailed research was put into act in order to find the technology which would best serve the requirements from which the best most accurate software technology was used. Various flowcharts and algorithms were also designed for us to find the most efficient way to plan and work on the website.

We have used HTML, CSS, Bootstrap, JavaScript, along with several libraries associated with and for etc. We also needed other dependencies like Python and Kotlin also we used Google APIs for Maps and Different APIs to use their And Node JS along with Git Bash. Google, ArcGIS, Watson, and Microsoft APIs were also used.

2. Algorithm and Design

2.1 Algorithm #1: General App Flow:

Step 1: Sign in, here the user will enter his\her name, age, email address and etc

Step 2: Open the Home page

Step 3: There will be four available options which include “About”, “Settings”, “Services”

And “About Turkey”

Step 4: In “About” section the user will find all the information about the app.

Step 5: In “Setting” section the user will select his\her native language in order to have all the

Instruction and speech written the chosen language, sign out option, select their native country.

Step 6: In “Services” section the user will find all the services the app offer like: Map, Weather,

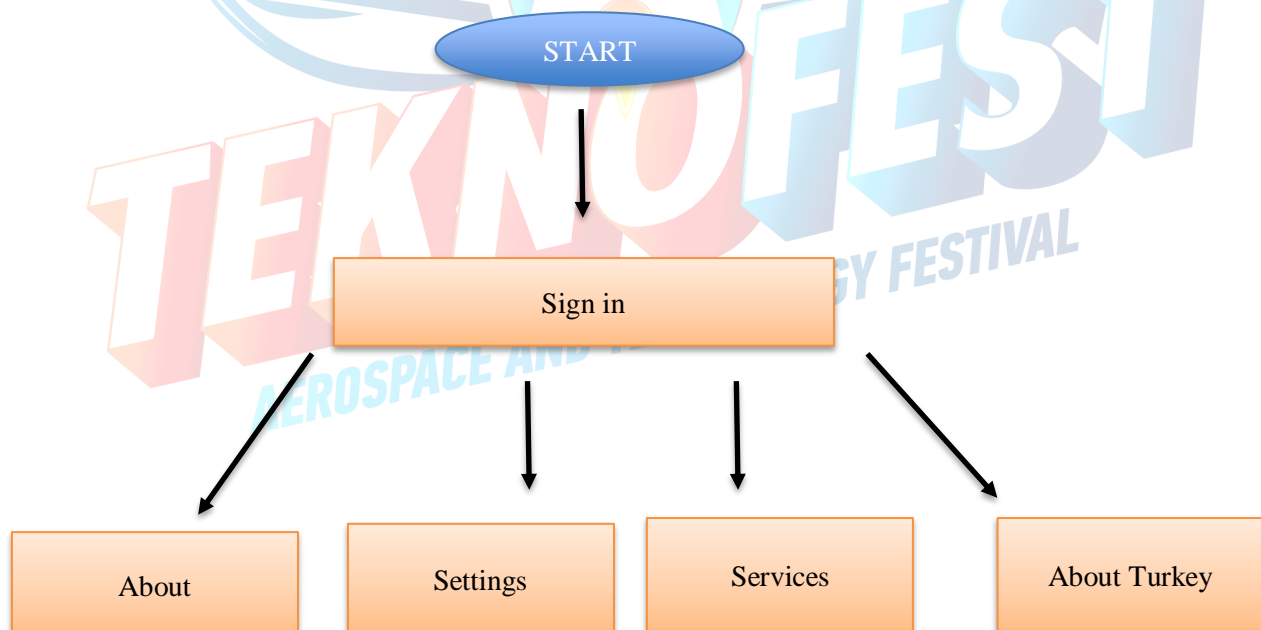
Online hotel and flight booking, Currency, Emergencies and Etc.

Step 7: In “About Turkey” section user will find all the information related to Turkey like: Food,

Famous places, its culture and Etc.

Step 8: In “Language Translator” section the user will be to translate his\her native language into The selected language.

Flowchart #1:



2.2 Algorithm #2: About:

Step 1: Click on “About”

Step 2: There will be three available options: Services information, Data policy and App updates

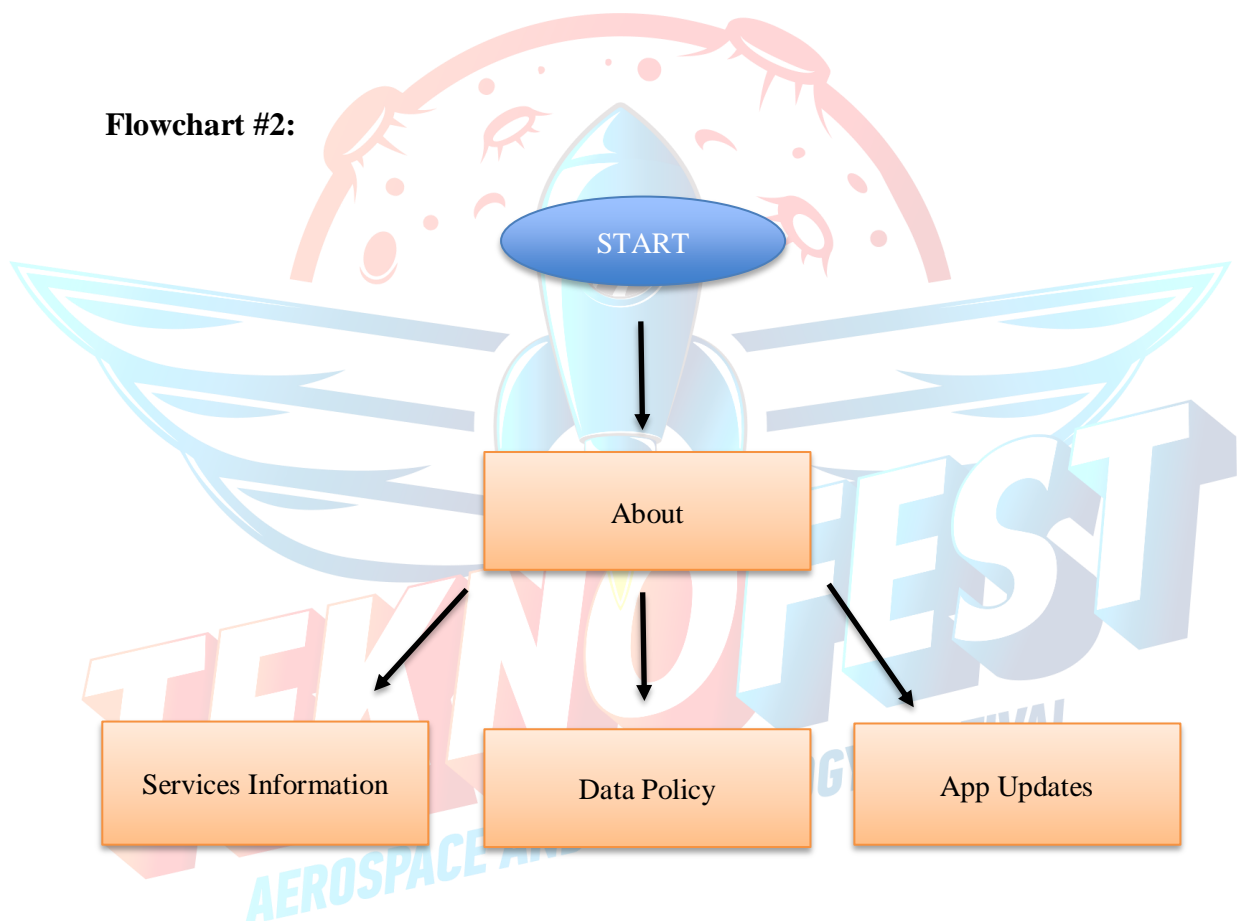
Step 3: Under “Services information” option the user will find the information about all the features the app offer

Step 4: Under “Data privacy” option the user will find what and why we collect their information And how we keep it protected.

Step 5: Under “App updates” the user allow whether to automatically update the app or to ask

First and to either keep the notification option on or off.

Flowchart #2:



2.3 Algorithm #3: Settings:

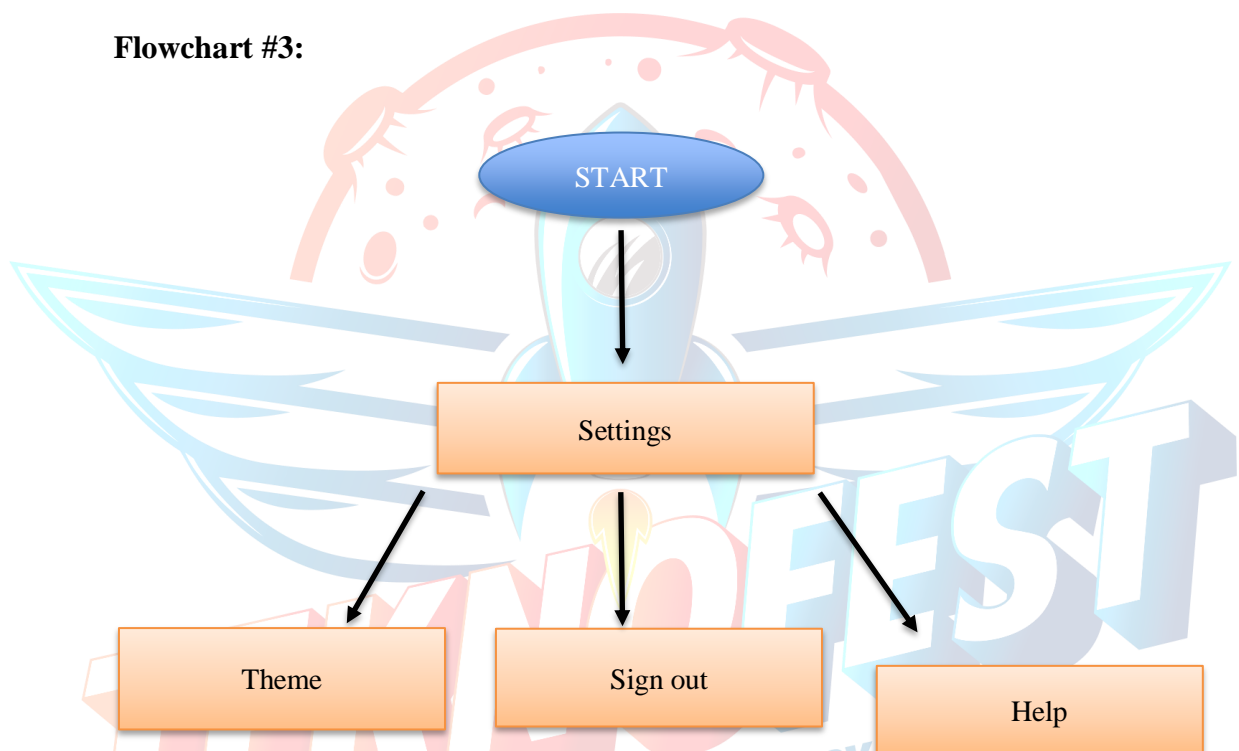
Step 1: Click on “Settings”

Step 2: There will be three available options which include: Help, Theme, and Sign out

Step 3: Under “Help” option the user will be able change the email address, age, contact number, Their chosen city in Turkey and etc.

Step 4: Under “Theme” option the user will be able to change the theme of the app

Step 5: Under “Sign out” option the user will be able to sign out of the app.

Flowchart #3:**2.4 Algorithm #4: Services**

Step 1: Click on “Services”

Step 2: There be eleven available option which include: Transportation, Map, currency, Emergencies, time zone, reviews, online booking, weather forecasting, job finder and Voice assistant.

Step 3: Under “Transportation” option the user will find app links that offer cab rides

Step 4: Under “Map” option the user will find the map of the respective city, Restaurants, cafes, malls, historical places, museums, library, stadiums and etc.

Step 5: Under “Currency” option the user will find more option that include: pictures of currency

Currency exchange and etc.

Step 6: Under “Emergencies” option the user will find nearby dispensaries, public toilet and Hospitals.

Step 7: Under “Time zone” option the user will find the time difference between Turkey and the Selected country.

Step 8: Under “Reviews” option the user will enter a certain place in Turkey to find its reviews And ratings.

Step 9: Under “Online booking” option the user will be able to find links where he\she can book flights and hotel.

Step 10: Under “Weather forecasting” option the user will find the weather updates about different areas and cities in Turkey and of their selected country.

Step 11: Under “Job finder” options the user will find links that offer different part time jobs In Turkey.

Step 12: Under “Voice Assistant” option the user will select either to have a voice assistant or not.

Flowchart #4:



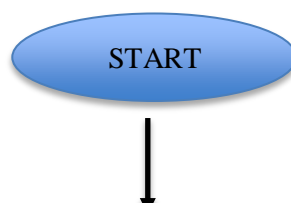


2.5 Algorithm #5: About Turkey:

Step 1: Click on “About Turkey”

Step 2: There will be a search bar given through which the user can find all the information he/she Needs about Turkey.

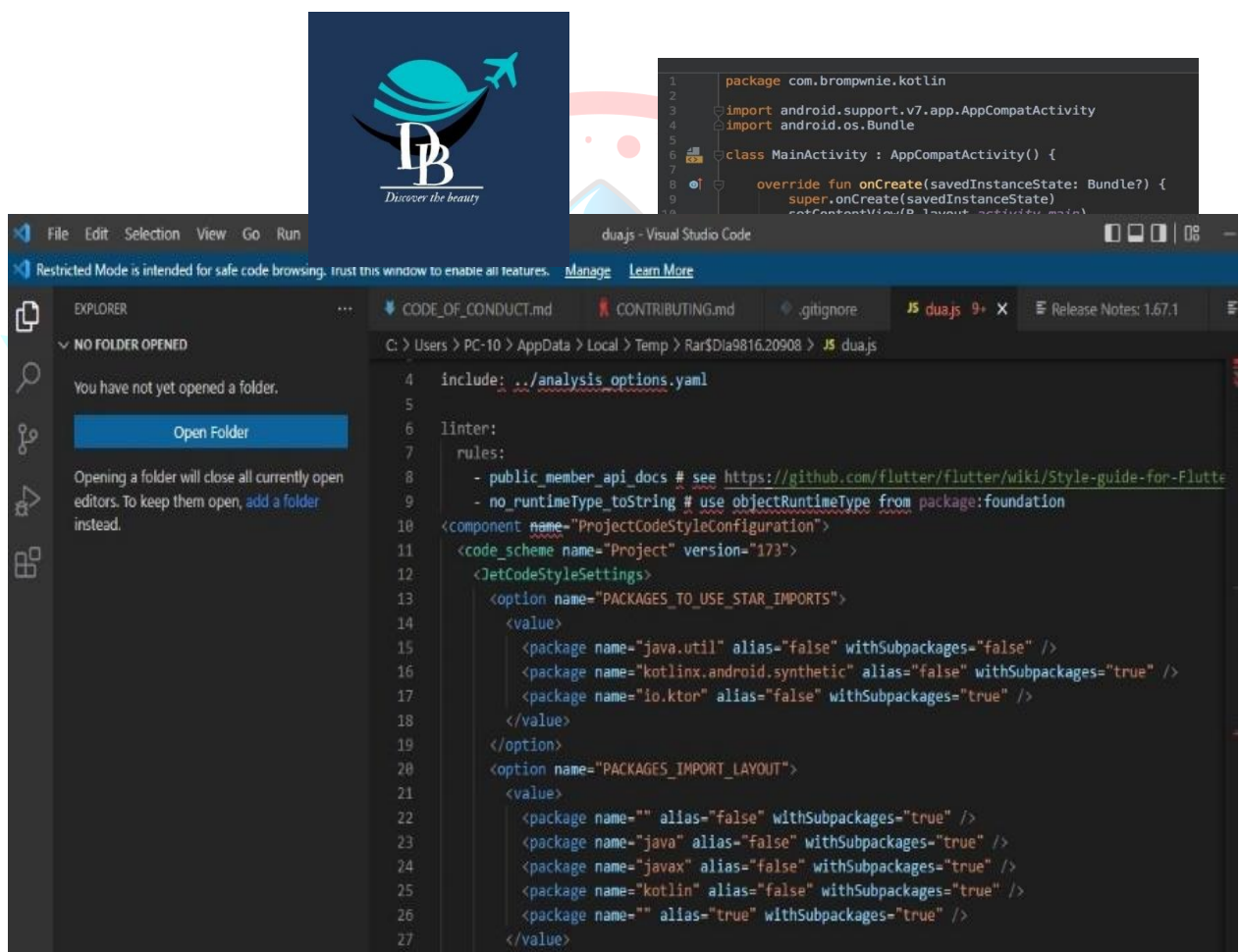
Flowchart #5:



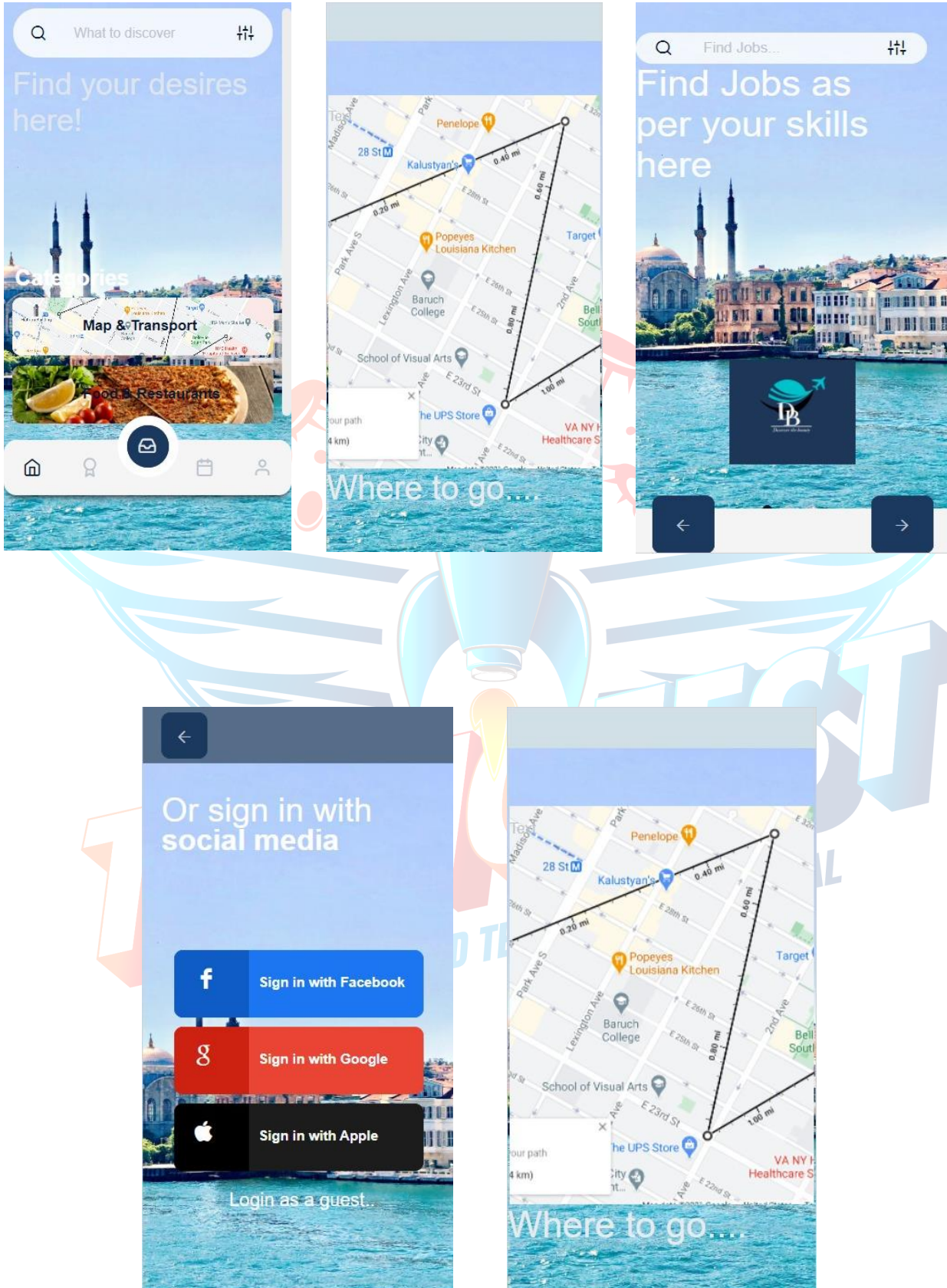
About Turkey

Search information

2.6 Visuals



Screen View:



3. System Architecture (15 Points)

3.1 The Home Page:**3.2 Public Services****3.2.1 Currency Exchange****3.2.2 Job Finder****3.3 Map****3.3.1 Transport****3.3.2 Restaurant****3.3.3 Hospital****3.4 Voice Translators****4. Feasibility / Applicability (20 Points)**

Let's now look at real life situations where the solutions we provide will come in handy for a tourist, as well as proofs through experimentations that our features are functional:

4.1. Associates:

A hotel which is associated with our site only need a functional device and a Professional Google Account to receive responses from the users of our app, and act to upon them. The succession rate of this was assured as the Google forms would reach the consultants. We tested this feature by entering the information in the forms and then sending it to the Domain. It works successfully and we received the forms.

4.2. Public Services:

Locating tourist attractions and excursions is all good, but unforeseen circumstances can Befall upon anyone anytime. Due to wide variety of places that our site can locate, one can Find almost any time of location according to need, like a doctor in case of injury. We tested out this tool by using it at multiple locations, and Google API was successful Every time in locating the places we specified.

4.3. Get Directions:

Not only during a tour but also during an emergency situation this service serves as one-stop Solution, such as getting directions to a market or ATM that the user learnt about from Public Services tab from their location. After testing this feature out, we were able to conclude that this is working efficiently as ArcGIS API was able to receive routes when multiple starting and ending/destination points Of Turkey were entered.

4.4. Plan My Trip:

A person with no knowledge of a place would really like a tool that can reliably plan out everything for him if he is to go on a trip to that place. After developing and testing this feature, the webpage was planning the trip according to the User's will, considering their budget and location, through simple jQuery coding.

4.5. Voice Tourism Assistant:

Everyone wants software to be as easy as possible, and the assistant plays a vital role in that. We tested out this feature by speaking up to the assistant. The voice assistant responded to The commands accordingly. So, we can conclude that the Watson assistant is fully functional And works efficiently.

5. Innovation / Originality (15 Points)

Various different types of tourism apps and websites are already in existence, the unique feature which distinguish our app from the other app are as follows:

i. All in one:

The apps related to tourism are divided and do not provide all features in one place and switching from one app to another could be a cause of hindrance for the user so, we combined all features in one app along with few unique and new features.

ii. Job finder:

Incase of those travelers looking for thrill and trying out the local lifestyle our app also provides the feature of finding a part time job within ones jurisdiction.

iii. Currency exchange:

Our app also provides the unique feature of currency exchange for Travellers due to which any problem related to money exchange would not be faced by the user.

iv. Special review:

A feature in which the reviews of experts would be included due to this user will have access to honest and updated reviews.

v. Emergency locations:

When travelling alone or with family it is very important to know the nearby emergency location like hospital, fire station, police station, ATMs for the user to feel comfortable.

vi. Language translator:

Tourism sites don't commonly include the feature of offline translator. Our App can translate the written text or the spoken words in to the inserted language helping lower the barrier of language.

6. Solution to a Problem / Need (20 Points)

During the difficult times of Covid-19, the risk of infection by hiring a tour guide increases as a tour guide is someone who comes in contact with various people on daily basis due to which it is safer to use a virtual tour guide.

6.1. Association:

Our app will cooperate with various other hotels, restaurant and shops. Reviews and feedbacks would be available for user such that the user would be fully assured.

6.2. Services:

Our app will provide various public services such as:

I. Restaurant:

It is hard to find the best suitable place to eat in a new place, so we included the features which provides all related information to the restaurant, their service and food.

II. Hotels:

When the name of a city is entered our app opens the map and shows results of various hotels one can filter the search according to their requirement. By clicking on the hotel the address, rating, contact details and various types of room available would be mentioned.

III. Tourist spot:

Sometimes when you visit a country there are many places that are a must visit but somehow did not make it to your list so we included this feature in the app to make sure that you visit these places.

IV. Emergency spots:

Incase of any situation our app provides list and details about the emergency spots to prevent a mishap from occurring.

6.3. Directions:

Only need to enter their location and their destination and they will be provided with the quickest route.

6.4. Finding a job:

Incase someone travelling is interested in the local daily life our app provides option to find a part time job.

6.6. Translator:

When you are in a new place, surrounded by strangers who don't speak your language or the Common language, then language can be a huge issue. So to provide ease to our users in this Aspect, we have this translator feature which would translate any language.

6.7. Voice Assistant:

Voice assistant is your whole voice guide to our site, it will help you navigate and fully Discover all the features. Voice assistant is present on the top right corner of the landing page.

7. SWOT Analysis (5 Points)

Strenghts	Weaknesses
<ul style="list-style-type: none"> • The number of destination • Rich transportation network • Favorable climate • Economic conditions • Accommodation facility • Alternative tourism options • Sufficient supplementary service • Developed infrastructure and pavement 	<ul style="list-style-type: none"> • Inadequate marketing activities • Entryfees (Especiallyfordomestictourists) • Lack of qualified personnel • Foreign language problem
Opportunities	Threats
<ul style="list-style-type: none"> • Public policies towards tourism • Young population density • Continued archaeological excavations • Efforts visa-free travel toTurkey 	<ul style="list-style-type: none"> • Increasing migration in the recent period • Changing demographics and culture because of the migration • Competititon with other well-organized countries

8. Bibliography

8.1. References:

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