TEKNOFEST

AEROSPACE AND TECHNOLOGY FESTIVAL

TOURISM TECHNOLOGIES COMPETITION

PROJECT DETAIL REPORT

Contents

- **Project Team / Project Summary**
  - **About The Team**

In our team, there mainly are 2 members present who currently are working on this project and will be looking forward to enumerate many additions to this project too. Our project is based on technology and how it could help many tourists on their journey or at their destination so our projects team will mainly be focusing on the coding. Our teams captain will be doing most of the coding while leading her assistant too, and the assistant herself will be doing some additional coding and the graphics designing. This teams name 'Sojourn' depicts to technology which is what our team looks forward to. We can assure you that our team looks forward on experimenting and discovering more about technology.

"The rapid advancement of technology means that there is always something we can do to make a sector or a particular aspect of life easier; we have targeted the tourism sector to contribute to the betterment of tourists." (2022, Tourism Technologies, Sojourn)

  - **The Software Design**

Designing a software may be very tough and a process that need concentration for being completed most of the times when it is concluded but despite this fact our team tries its best to make sure we try our best to work on the design for this project.

  - **The Software Itself**

This software is mainly being made to help tourists with something that can fit in their pocket and could be used anywhere at any time. Our software contains many main features. These features include:

-Being able to locate medical stores and hospitals

-Being able to locate restaurants

-Being able to give reviews on specific cuisines of an area

  - **How We Will Assemble This Project**

First of all, we will start coding simply by following what we had planned through the many charts we had constructed and through the ideas we had written down in many files.

Software for coding may include:

-Notepad++

-Flosum

-Bubble

-Tabnine

-Atom

Along the coding process, we will work on the visuals and graphics too. The programs that we will use for this are mentioned in the image above under the heading 'The Software Design'.

If any audio is needed we will use Audacity for recording and https://www.zapsplat.com for sound effects.

Visuals:

The software that will be used to work on the graphics of the project as well its developments are illustrated in the images below:

- **Algorithm and Design**

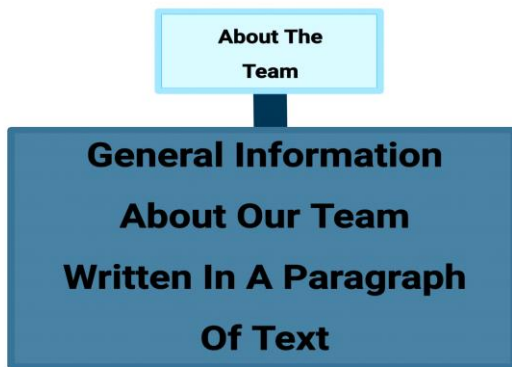 - **How The Website Should Generally Work**

-The menu should be present with five options.
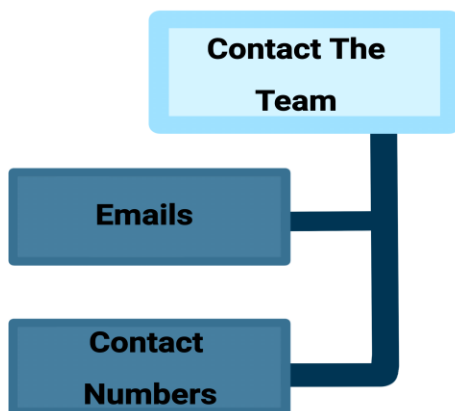-Each option should lead to its respected page after being clicked accordingly.

  - **Flowchart For Algorithm-1**

- **What Happens When You Click 'About The Team' (Flowchart: Algorithm-2)**

About The Team

General Information About Our Team Written In A Paragraph Of Text

- **What Happens When You Click 'Contact The Team' (Flowchart: Algorithm-3)**

Contact The Team

Emails

Contact Numbers

- **What Happens When You Click 'Locations' (Flowchart: Algorithm-4)**

Location

Grant Access To Location

Hospitals & Medical Stores

Restaurants

Proceeds To Location The Following

- **What Happens When You Click 'Reviews' (Flowchart: Algorithm-5)**

Reviews

- Cuisines Are Displayed
- Reviews Are Showed When Clicked
- Add Reviews
- Reply To Other Reviews

- **What Happens When You Click 'Settings' (Flowchart: Algorithm-6)**

Settings

- Account
- Language
- Help
 - User Guide
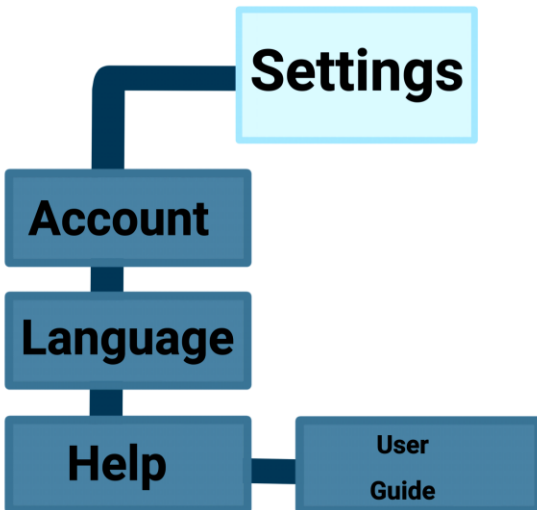
- **System Architecture**

Bubble: Several software applications are being used to construct this project into a single software. To illustrate, we are using Bubble for constructing most of the software as a software is mainly reliant on a certain base. Bubble is a coding software in which you do not have to code but work on a more illustration based working. Since it is a no-code editor, countless possibilities are presented through it for even those who have no experience with coding or a specific language. Bubble has rapidly gained popularity and attention due to its interface as well as detailed tutorials that the software provides.
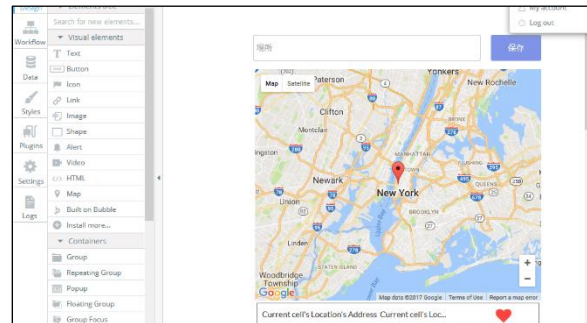
Tabnine/ VS Code/Atom/Notepad ++: Even if no-code editors are used, the need to write custom code can arise any time for a developer, so that he/she can develop tools and features that suits his/her needs. That is where Integrated Development Environments come into use. Different IDEs are preferred by different coders, and therefore, we have shortlisted the best one according to their flexibility, options of extensions, and the ability of facilitating add-ons.
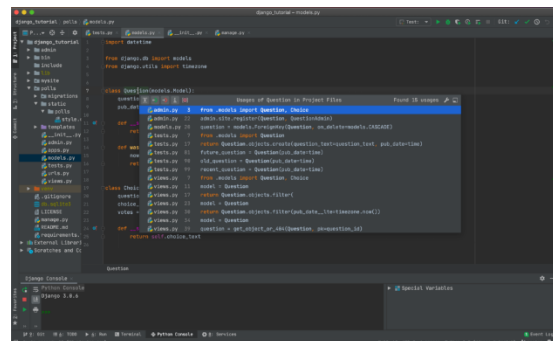

APIs: Since our application is mainly based on locating various types of places, we will obviously not design a vast database of locations all over the world on our own. We will have utilize globalized, reliable datasets, something that can be provided through Application Programming Interfaces which allow us to access a specific database, and display the data according to the requests of the user. The best API for this is the Maps API of Google.
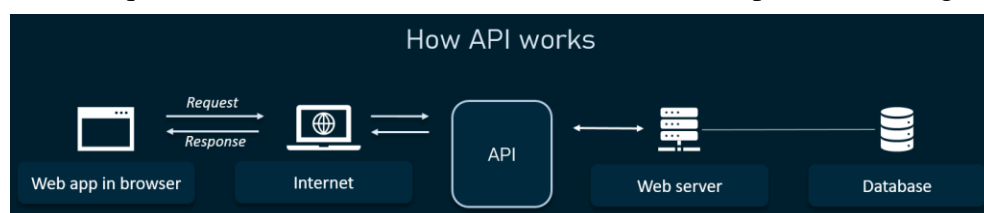
NodeJS: Designing of mobile apps is done on the computer. Node along with various other dependencies such as Gradle will be required during the exporting process of the application to the mobile phone.

GitHub References: GitHub is the platform where the world builds code. Newbies to experts all upload their codes for help and feedback there. It can therefore be a good source of assistance and reference with regards to code.
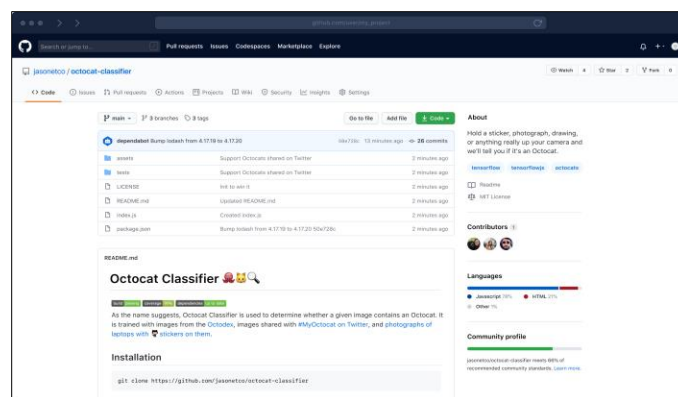
Android Studio: Android Studio is what will allow us to export our application to an Android mobile device. It helps in determining with what Android OS versions our application will be compatible with, and also will also help us in the creation and exporting of Application Package (APK) of our application.
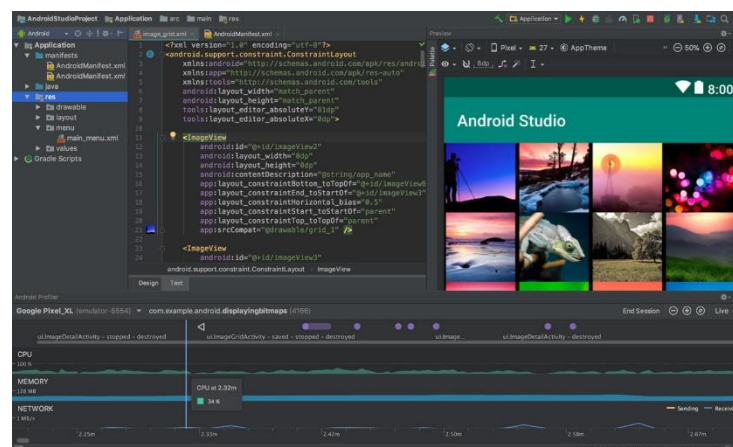
- **Feasibility / Applicability**

Technological tools are taking the world by storm, and their applications are being widely implemented in order to make life easier. We aim to use mobile app development tools for the ease and betterment of tourists.

A tourist's life will surely be made feasible through our app due to vast functionality of our software. Our app, for now, is in prototyping phase, and before launching the application on platforms such as Google Play and the App Store, we will have to make it fully functional with a beautiful interface, full of useful features, as well as lightweight for the mobile and tablet devices of users.

Not only will the feature of locating various kinds of places prove to be useful, the review feature will also help a great deal as it will help tourists to determine which places they should opt for and prefer over another.

The features that we plan on including and implementing include displaying of data of many more types of locations. We do not intend to only stay limited to the locations we have implemented and mentioned for now. Such other locations include hotels, significant tourist spots of different cities, malls, movie theatres, amusement parks, and many more along with their reviews given by users. Users will also have the feature of giving their own reviews. Since other tourism software include itinerary and trip planners, that is also something that can be incorporated in our tool.

There are no significant experiments that we have performed with our app that are worth mentioning as the app is still in development phase. However, after it is fully complete and tested, there is no doubt that due to it being a need for tourists all around the world, it will come into demand rapidly. However, we should also make sure that the product is marketed widely and to the right audience.

Visuals:

- **Innovation / Originality**

Similar existing software: Google Maps and Waze are similar software as compared to our own tool. Google Maps can detect the location of the user, and can also locate various kinds of locations. The location can either be manually mentioned, or the type can be specified after which Google displays all kinds of locations according to the location of the user as per detected by its software.

Innovation in Idea: Our application has been made more simple and even more straightforward than such big platforms as our application limits the types of locations that it can target, and only includes those places that will prove to be useful for tourists in any way possible. It doesn't provide uselessly vast collections if places that a tourist might never be interested in.

Ease as an innovation: Limiting our application to only specific types of locations that will come into use for tourists will automatically simplify user experience in a way that is innovative and novel.

Safety: Our innovation also lies in the fact that our application also considers the factor of safety for tourists by recommending emergency spots like hospitals and stores. All other tourism applications primarily focus on making the trip memorable by suggesting tourist spots as well as planning of trip itinerary.

Innovation in Code: Our innovation in code perhaps includes the fact that we have used newer technologies such as no-code editors to build an application of tourists. Therefore, our novelty in coding aspect is the utilization of newer technological facilities.

Innovation in Design: We will build the design of our application from scratch with mere inspirations from other sources; the majority of the work of the design will be done by us. Therefore, this will obviously produce a novel design.

1. **TripAdvisor VS Sojourn**

Features	TripAdvisor	Sojourn
Restaurants	Yes	Yes
Reviews	Yes	Yes
Trip Planning	Yes	Yes (Future)
Language Support	No	Yes
Emergency Spots	No	Yes

2. **TripIt VS Sojourn**

Features	TripIt	Sojourn
Restaurants	Yes	Yes
Reviews	No	Yes
Trip Planning	Yes	Yes (Future)
Language Support	No	Yes
Emergency Spots	No	Yes

- **Solution to a Problem / Need**

There are various reasons which make our app necessary in the tourism sector. It will be of great use of tourists in a foreign land with no knowledge of locations which might be needed in case of emergency, as well as for any other need. An app that specifically targets only those places located within the vicinity of the tourist, and only displays useful kinds of locations in a simple and straight forward manner which does not require much action or data from the user himself will result in popularity of the app due to its usefulness, simplicity, and user-friendly interface. The problem of having to ask for places or directions or using online platforms in which a lot of information is to be manually entered will be eliminated.

Hospitals: Medical emergencies usually do not arise knowingly, and the urgent need for one may arise out of the blue. To make matters worse, if someone is in a foreign land where he has no idea where he might find a medical store which is not only near, but also trustworthy and safe for the patients. Hence, our app will come in handy as it will provide a list of all nearby medical hospitals, clinics, or any other medical place, as well as their reviews so that users may get to know what other people think about that place with regards to its hygiene, staff, equipment, etc.

Stores: Stores also count as emergency spots as different kinds of supplies are needed by tourists throughout their trip. Our app can locate them and the tourist can choose the place that offers the material that they require.

Restaurants: During every trip, a tourist also requires good food, and usually, he or she expects to due out cuisines cultural and native to the place they visit. This is also where the app will come into use as it will help to locate restaurants of the location of the tourist as well.

Reviews: The review feature is included for the reason that it will help tourists determine a preference. Hundreds of locations of the same type exist within a region, and choosing one is tricky unless one has easy access to feedback of the people. Furthermore, the tourist can also rate and review his own experience after his visit of a place.

Technology Level Now	Technology Level To Be Reached
1. The ability of targeting locations needed during emergencies.	1. A more vast collection of the types of locations should be included.
2. The ability of targeting best-rated restaurants.	2. Features like trip and itinerary planner should be added.
3. Feature of viewing other users' reviews and the ability to add reviews.	3. Virtual assistants can make the experience even better.
4. Setting up of account.	4. Pricing plans can be included.
5. Functionality on only our local devices.	5. Functionality and responsiveness on all devices
6. Language support.	6. Review filter to include only useful ones.

- **SWOT Analysis**

S.No.	Strengths	Weaknesses	Opportunities	Threats
1.	Makes experience memorable by locating spots sought after by tourists.	Prototype currently lacks desired functionality.	Potential of a great market value.	Lack of popularity by lack of good advertisement..
2.	Special care of safety due to ability of locating emergency spots.	For now, useful existing features of tourism apps have not been included.	Popularity in the tourism sector due to rich information.	Failure in market due to wrong launch timing.
3.	Flexibility due to possibility of adding many features.	Design of the application can be improved even more.	Generation of profit and revenue through advertisements and featuring.	Loss in finances if expenses of technological features are more than revenue.

- **Bibliography**

Articles	YouTube Channels	Websites
doanytech.com	DevEd	wishtrip.com
gigazine.net	SoftAuthor	bubble.io
emirhanakman.com.tr	Caleb Curry	goturkiye.co
creativebloq.com	Brackeys	tripadvisor.com
businessnewsdaily.com	CodeFlix	tripit.com