



The University of the West Indies
Department of Computing and Information Technology
Undergraduate Project Course

Project Scope Statement

The project scope is a short document prepared primarily for the client. The scope statement clearly describes what the project will deliver and outlines generally at a high level all the work required for completing the project.

Project Name: Save Planet Earth

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Project Scope Statement:

Trinidad and Tobago has a significant garbage problem in which litter is widespread on this island. Disposables and other waste can be found along roadsides, in drains and even on beaches. In 2018, over a half-a-ton of garbage was removed from Invaders Bay, Port-of-Spain. Littering reveals the lack of environmental consciousness the society has. As such, Save Planet Earth aims to promote awareness to the citizens of T&T about the impact they have on the environment in a fun and creative way.

General Project Information:

This country is facing a serious environmental crisis and if it is not corrected soon, it can result in dire consequences. As such, citizens need to be educated properly about the importance of environmental conservation. There also needs to be an outlet in which these persons can utilize their newly found education by attending clean ups or planting trees with other individuals. Therefore, this application aims to be a social and educational hub for users who are looking to adapt to a cleaner, eco-lifestyle. The application will be actively engaging with its users by providing challenges and daily tasks, with incentives to encourage the users to continue living an eco-lifestyle.

Problem/Opportunity Statement:

Trinidad and Tobago generates the most garbage per capita. World Bank statistics show that the nation generates 14.4 kilogrammes of municipal solid waste per capita per day – 12 times the world average of 1.2 kg. As such littering is a very serious problem, as citizens of this small island, it is our duty to keep the nation as clean as possible. This application intends to educate the public about the effects they have on the environment and ways in which they can sustain it as well.

Project Objectives:

The project aims to consist of the following features:

- A platform where users can post events such as beach cleanups, planting of trees, and indicate their attendance to the event.
- The users would be able to monitor and calculate their footsteps throughout the day and be self-rewarded if satisfied.
- The application would be able to calculate the amount of carbon emissions produced each day and therefore, be a means of car-pooling and encourage users to carpool with those in their community whose destinations are close.
- The application will provide users with useful tasks for a cleaner eco-lifestyle and allow each user to track their progress via a chart when they complete certain eco-friendly tasks. These tasks would include carrying a reusable shopping bag to the grocery or picking up ten pieces of litter for the day as well as posting before and after pictures of an area they cleaned up.
- Users can take part in challenges and earn a badge on the website as well as physical rewards such as vouchers, gift certificates etc.
- The application works as a platform for businesses to display their advertisements and in return, they sponsor some of the rewards which will be given to users.
- The application will provide information about environmental protection and conservation as well as contact information on iCareTT and other garbage collectors.

Project Description:

Save Planet Earth will be a platform where users can host and be informed of eco-events such as Beach Clean Ups, Planting Trees Events etc. There would be an informative section where users can learn more about the impact they have on the environment, recycling and reducing the amount of waste they produce. The application would encourage users to carpool with those in their community and reduce their carbon emissions daily. In addition, it will allow users to track the amount of footsteps they make where they can be self rewarded with a healthier lifestyle as well as gain points on the application. This will be a challenge feature where users can participate in green missions where they are rewarded with points. This will be displayed on a chart where users would be able to track their monthly progress of their eco-friendly lifestyle. At

the end of the month, the user with the highest number of points would be given a badge to display on their profile. They would also be rewarded vouchers and gift certificates from companies and which, in return, will gain advertisement on the application. Lastly, there will also be a page dedicated to contact information of various recycling facilities such as iCareTT and other garbage collectors as well as information on environment conservation and protection.

Business Benefits:

- To bring awareness to a detrimental problem facing the country.
- To promote an eco-friendlier lifestyle with the use of incentives and rewards.
- A cleaner environment to live in by encouraging citizens to reduce the amount of carbon emissions produced daily.
- A more organized and efficient way of creating and viewing eco-events.

Project Beneficiaries:

- Citizens of Trinidad and Tobago.
- The companies which gain advertisement and give sponsors.

Project Deliverables:

1. System Requirements, Elicitation & Specification
2. Context Diagram
3. High Fidelity Prototype
4. Build User Interface.
5. Set up Sign up, Login pages and database.
6. User Stories, Use Case Diagram, Class Diagram, Entity Relationship Model, Sequence Diagram
7. Architectural Design
8. Integrate EventBrite API into our application for when users post events.
9. Set up Challenges and Rewards pages and create the tasks/challenges.
10. Pages for displaying information on environmental conservation, garbage collectors contact information and organising carpool.
11. Build footsteps tracker page and Carbon Emission reduced page.
12. Testing and Refactoring

Estimated Project Duration / Timeline:

3 months

The software will be divided into 5 sprints. The tasks are divided into the amount of days we believe would be necessary in order for them to be completed. At our weekly SCRUM meetings, necessary adjustments would be made to the time of our tasks.

SPRINT 1:

February 4th - February 17th

- Sign-up form, confirmation link sent to user's email.
- Login using credentials (username and password).
- Database setup and populate with test data.

SPRINT 2:

February 18th - March 3rd

- Code events page in which users can post events
- Code how the users will indicate their attendance to events

SPRINT 3:

March 4th - March 13th

- Code the daily tasks/challenges page.
- Create the tasks and challenges.
- Create a page for the display of environmental protection and conservation and contact information of iCareTT and other garbage collectors.

SPRINT 4:

March 14th - March 28th

- Code how the footsteps would be tracked.
- Calculation and monitoring carbon emissions.

SPRINT 5:

March 29th - April 4th

- Page where users can organize to carpool with other users in their communities to reduce the carbon emissions.
- Refactoring
- Final Testing

GANTT CHART SHOWING SCHEDULE OF ALL ACTIVITIES AND TASKS

