Project Plan

< Victoria Road Crash Dataset >

Group 56

Student Names

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# Introduction

## Background

Based on Victoria Road Crash Dataset provided by VicRoads, the development of this study will be developed to provide road safety data to users easily and quickly based on time, location, condition, collision type, type of road user, object collision, etc. To reduce traffic accidents and risks in Victoria. In addition, the software analyses the accident point and provides visualized insights to help users understand.

## Scope

Document work for this study will be completed prior to the final submission on September 3, including the Gantt Chart, after which the project will be developed according to the schedule assigned to WBS. The software as well as all document work will be uploaded to GitHub by October 8, the final project deadline.

## Document contents

The project ideally is to develop a program that uses data from road crash statistics in Victoria, Australia. The statistics that are used spans overs 5 years occurring from 2015 to 2020, to classify deaths and injuries in addition to analysing data based on user time, location, condition, type of collision, type of road user, object impact, etc…

# Work Breakdown Structure

Our team is organized and each person is assigned a role to complete this project by the project deadline. Allocated work is performed on all days except weekends and holidays, and in terms of roles, each has a primary role, which means that we do most of the work and then play a secondary role. From an external group's point of view, our main external group is the customer. We work closely with our customers to ensure that efficient communication is maintained, their feedback is well received and maintaining their vision of the project.

**Member Name:** Inho Kim

**Roles (Primary/Secondary):** Project Manager, Developer/Tester

**Responsibilities:** Inho Kim is in charge of project planning, activity definition, and work schedule, and project development with the roles of project manager, developer

**Member Name:** Ehkeller Hein

**Roles (Primary/Secondary):** Developer/Tester

**Responsibilities:** Ehkeller Hein is responsible for the development and tester of the project. He communicates with customers and develops the capabilities of the project, and actively reflects feedback to help the project grow through software testing.

# Activity Definition & Estimation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Task Name* | *Resource* | *Process* | *Start* | *End* | *Duration* | *Progress* |
| *1* | *Analysis* | *-* | *-* | *10-08-23* | *22-08-23* | *10 days* | *100%* |
| *1.1* | *Analysis of Dataset* | *IK* | *Completed* | *10-08-23* | *14-08-23* | *5 days* | *100%* |
| *1.2* | *Architecture Analysis* | *IK* | *Completed* | *15-08-23* | *18-08-23* | *4 days* | *100%* |
| *1.3* | *Risk Analysis* | *IK* | *Completed* | *19-08-23* | *22-08-23* | *4 days* | *100%* |
| *2* | *Design* | *-* | *-* | *23-08-23* | *27-08-23* | *5 days* | *100%* |
| *2.1* | *System Design* | *EH* | *Completed* | *23-08-23* | *26-08-23* | *4 days* | *100%* |
| *2.1.1* | *Requirements* | *EH* | *Completed* | *27-08-23* | *28-08-23* | *2 days* | *100%* |
| *2.1.2* | *System Components* | *EH* | *Completed* | *29-08-23* | *30-08-23* | *2 days* | *100%* |
| *2.2* | *Software Design* | *EH* | *Completed* | *31-08-23* | *04-09-23* | *5 days* | *100%* |
| *3* | *Development* | *-* | *-* | *05-09-23* | *22-09-23* | *18 days* | *-* |
| *3.1* | *Implementing Web Features* | *IK* | *Not Started-* | *05-09-23* | *06-09-23* | *2 days* | *0%* |
| *3.1.1* | *Time* | *IK* | *Not Started-* | *07-09-23* | *08-09-23* | *2 days* | *0%* |
| *3.1.2* | *Location* | *IK* | *Not Started-* | *09-09-23* | *10-09-23* | *2 days* | *0%* |
| *3.1.3* | *Condition* | *IK* | *Not Started-* | *11-09-23* | *12-09-23* | *2 days* | *0%* |
| *3.1.4* | *Crash Type* | *EH* | *Not Started-* | *13-09-23* | *14-09-23* | *2 days* | *0%* |
| *3.1.5* | *Road User Type* | *EH* | *Not Started-* | *15-09-23* | *16-09-23* | *2 days* | *0%* |
| *3.1.6* | *Object Hit* | *EH* | *Not Started-* | *17-09-23* | *18-09-23* | *2 days* | *0%* |
| *3.1.7* | *Additional Elements* | *IK* | *Not Started-* | *19-09-23* | *20-09-23* | *2 days* | *0%* |
| *3.2* | *Implement Visualization Capabilities* | IK | *Not Started* | *21-09-23* | *22-09-23* | *2 days* | *0%* |
| *4* | *Test* | *-* | *-* | *22-09-23* | *02-10-23* | *5 days* | *-* |
| *4.1* | *Integration Test* | *IK* | *Not Started-* | *22-09-23* | *23-09-23* | *2 days* | *0%* |
| *4.2* | *Troubleshooting and Issues* | *IK* | *Not Started-* | *24-09-23* | *27-09-23* | *4 days* | *0%* |
| *4.3* | *Feedback* | *IK* | *Not Started-* | *28-09-23* | *02-10-22* | *5 days* | *0%* |

* 1. **Analysis of Dataset**

Identify the data elements of the Victoria Road Crash Dataset and analyse how the program will implement them. The expected work schedule is 5 days.

* 1. **Architecture Analysis**

Analyse elements of the software interface that effectively communicate visualized data to customers and build a holistic foundation. The expected work schedule is 4 days.

* 1. **Risk Analysis**

Analyse the risk factors of the software. The expected work schedule is 4 days

**2.1 System Design**

Design the system using the elements analysed in 1. The estimated work schedule is 4 days.

**2.1.1 Requirements**

Design the requirements and software requirements presented by VicRoads. The expected work schedule is 2 days.

**2.1.2 System Components**

Design system components. The expected work schedule is 2 days.

**2.2 Software Design**

Design the visual design and functionality of the software. The expected work schedule is 5 days.

**3.1 Implementing Web Features**

Implement the features designed in 2 as web functions. Contains the CSS to define various images or text. The estimated work schedule is 15 days.

**3.1.1 Time**

The time of incident on Victoria State Road should allow data to be available in the order in which the customer needs information. Customers can sort the time of the incident in the latest, oldest order and determine when the incident occurred. The development period is 4 days.

**3.1.2 Location**

Information is provided to customers through statistics on places and places where road accidents occur frequently. Information on the area and location of the accident should be secured to ensure safe operation when the customer reaches the area. The development period is 4 days.

**3.1.3 Condition**

Drivers should be able to identify and print them according to conditions such as drunk driving, hit-and-run, and police attendance. The development period is 4 days.

**3.1.4 Crash Type**

To ensure the customer's collision prevention safety, each type of road accident collision must be provided. The development period is 4 days.

**3.1.5 Road User Type**

It should be possible to classify and statistics the types of road users such as gender classification and illegal driving or the elderly. The development period is four days.

**3.1.6 Object Hit**

Classify people or objects that have crashed on the road. The development period is 4 days.

**3.1.7 Additional Elements**

Design and develop additional features of the project. The development period is 5 days.

**3.2 Implement Visualization Capabilities**

Elements of the developed software should be able to provide statistically visualized data to the user. The development period is 4 days.

**4.1 Integration Test**

Conduct an integrated test prior to the release of the program to determine if there is any abnormality in the functional progression or error. The working period is 2 days.

**4.2 Troubleshooting and Issues**

After the integration test, the final check must be completed by resolving the problem. The working period is 4 days.

**4.3 Feedback**

Improve software quality by actively reflecting feedback from colleagues and customers. The working period is 5 days.

# Gantt Chart

