Project Plan:

UI implementation for Victoria state accident dataset

Manish Saily

Edward Winston

Table of Contents

[1.0 Project Overview 3](#_Toc143520975)

[1.1 Background 3](#_Toc143520976)

[1.2 Scope 3](#_Toc143520977)

[1.3 Document contents 3](#_Toc143520978)

[2.0 Work Breakdown Structure 5](#_Toc143520979)

[3.0 Activity Definition & Estimation 6](#_Toc143520980)

[4.0 Gantt Chart 7](#_Toc143520981)

# Project Overview

## Background

In this project we are tasked with designing a graphical user interface which will visualise the Victorian state accident dataset. The data set contains the road crash statistics from 2015 to 2020. This data allows users to analyse the injury and fatal car crashes in Victoria within the five years. The data set can be analysed by date, time, location, conditions, and crash types. The current dataset is very large and hard to analyse by itself. Through the implementation of the GUI, we aim to achieve ease of analysis for the user and provide easy access for the user chosen time periods for better and easier analysis of the dataset. Currently there are over 70,000 unique values which are hard to analysis in their base excel format. With the implementation of the UI, we aim to provide an easy access for the users selected period of time for a better visualisation of the dataset. This time frame will be within 2015 and 2020. Providing readable graphs and trends for the dataset will also be a functionality of the GUI which will allow users to better understand the accident conditions and analysis of the accidents.

## Scope

The scope of this project is to develop a simple data visualisation and analysis tool for the Victoria state accident data set. When designing the user interface there are four required features that need to be functional in the UI:

* The user must be able to select a period of time and display all accidents in that period.
* The user selected period must also produce a chart that will display the number of accidents (on average) in each hour of the day.
* Retrieve accidents by keywords (collisions, etc) for the selected period of time.
* Allow users to analyse the impact of alcohol in accidents.

The UI will be implemented using python and wxPython for the graphical user interface. This project plan will be providing all the required processes of planning the UI. Using the work breakdown structure, we aim to provide a realistic schedule of the activities required for the designing of the UI. The WBS will project the work into smaller and manageable components of the schedule. The report aims to provide an overview of the project to better understand the processes used in the design development of the UI. Upon completion of this project the deliverables will include a graphical user interface that meets the requirements outlined above. The project time will be 6 weeks. This time is taking into considerations the planning, designing, and creation of the UI. The constraints of this projects are the time restriction. As there can be issues arising during the development of the UI it is difficult to realistically fit unexpected events into the schedule due to the smaller time restriction.

## Document contents

This document will contain the background and scope of the project, the work breakdown structure, the activity, activity definition, and Gantt chart for the WBS. The work breakdown structure is the breakdown of the project into smaller components. This is done to better visualise the scope of the project and all the activities to better understand the required deliverables for completion of the project. The activity definition will focus on scheduling all the events and activities for the project completion. With this, a time estimation will also be provided for the project completion. The Gantt chart will also provide a better visualisation of the activity definition and providing a more readable timeline of the project completion and managing time during the project.

# Work Breakdown Structure

Level 0:

* GUI/UI implantation project for Victoria state accidents

Level 1:

* Meeting clients
  + Defining client time requirements
  + Defining clients UI requirements
    - User must be able to choose a time for the data.
    - Display the numbers of accident.
    - Display the accidents through keywords.
    - Display a data visualisation of alcohol.
* Defining team roles
  + Providing team members with roles
* Defining the project
  + Provide a project background. Developing a data visualisation tool
  + Provide a Scope for the project. Requirements for the project and time estimates
* Scheduling work and time
  + Creating work breakdown structure
  + Creating activity definitions and time estimation
  + Creating Gantt timeline for project completion

Level 2:

* Designing UI
  + Defining UI requirements
* Defining user requirements
* Defining system requirements

Level 3:

* Creating code
* Program support

*This section should include the work breakdown structure for the whole project. The elements from the WBS should be used to generate your activity definition and those activities should then be scheduled in the Gantt Chart. Remember to consider ALL project activities – anything you do or will need to do should be included in the WBS*

*WBS’s are usually presented as some kind of hierarchical diagram/chart etc. The details what is involved each work unit should be provided in section 3:* ***Activity Definition***

*You do NOT need to do a WBS Dictionary for this project – the activity definition (whilst slightly different) will suffice. The WBS is focussed on SCOPE. The Activity definition is focussed on TIME.*

# Activity Definition & Estimation

*From your WBS, define the activities required for your project. You will revise this document and add more detail for part B as you discover more about the project.*

*Each activity should be clearly identified by a number and should match up to your Gantt chart. You should provide some estimations for the time you think each activity will take. This should make it easy to prepare your Gantt chart.*

# Gantt Chart

*This section should contain your Gantt chart. The items in the Gantt chart should match the activity definition from section 3. You should also submit your Gantt chart file separately.*