

SYDNEY AIRBNB SEARCH

Project Plan



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Table of Contents

[1.0 Introduction 2](#_Toc144751877)

[1.1 Background 2](#_Toc144751878)

[1.2 Scope 2](#_Toc144751879)

[1.3 Document contents 2](#_Toc144751880)

[2.0 Work Breakdown Structure 3](#_Toc144751881)

[3.0 Activity Definition & Estimation 4](#_Toc144751882)

[4.0 Gantt Chart 5](#_Toc144751883)

# Introduction

## Background

Sydney is a large city with among the highest Airbnb listings globally. These listings generate substantial quantities of data, which provide insights into the prevalence of listings across various suburbs, the prices of properties compared by location, size and time, and the prevalence of listings with selected features, such as being close to the shops. Additionally, customer experience can be measured through customer ratings. These factors can also be measured across each suburb, for each sized listing and across a time series.

## Scope

To enable this data to be analysed and accessed, this project aims to develop software that can complete these tasks. This software will be able to report back data related to the location, price and cleanliness of a listing, and will be able to record the number of listings in each suburb.

During this project, a project plan will be created in order to show the planning of this whole project. Then the software design document will be made which contains the designing features of the software. After these two documents were made, the program code of the software will be implemented in python program. A testing plan will also be made during the coding process. Then the software will be tested following the test plan. Then the user manual and an executive summary will be made. The user manual contains the instructions of using the software and the executive summary will be a closing report for this project. There will also be a test report which records all the testing results. Project group will use this test report to evaluate their implementation.

## Document contents

In this project plan, a WBS (Work Breakdown Structure) diagram will be made to indicate the steps of the whole project. Then, all the activities in the WBS will be clearly explained and the duration of each activity will be estimated. Finally, a gantt chart will be created in order to show the whole process of the project and helps the team to track the progress of the project.

# Work Breakdown Structure

A diagram of a search engine

Description automatically generated

# Activity Definition & Estimation

* 1. **Group meeting.** (Estimation of duration: 1 day)

The project group’s first meeting. During this meeting, they will determine which dataset will be used to implement this project.

* 1. **Research for the Airbnb data.** (Estimation of duration: 1 day)

The project group will have a meeting and during this meeting, the dataset will be reviewed by the project group and the structure of the data in the dataset will be discovered and analyzed.

**1.3 Gathering the requirements.** (Estimation of duration: 1 day)

The project group will gather the requirements (user&software) of the project through this process.

**1.4 Define tasks**. (Estimation of duration: 1day)

The project will define all possible tasks during the implementation of the project.

**1.5 Allocating roles.** (Estimation of duration: 1 day)

After the tasks are defined, they will be assigned to each member of the group. There will be a group leader who monitors the progress of the project.

**1.6 Create WBS.** (Estimation of duration: 1 day)

The project group will come up with WBS (Work Breakdown Structure) steps which contain all the tasks defined in the previous step.

**1.7 Report back to client.** (Estimation of duration: 1 day)

The project group will set up a meeting with their client. During the meeting, the crew will explain their understanding of the project dataset and propose their implementation to the client in order to get client’s permission to implement this project.

**2.1 Design system structure.** (Estimation of duration: 2 day)

The structure of the program will be defined and listed out during this step. flowchart will be used to indicate the structure of the program. Notice that the structure may be varied during the implementation.

**2.2 Design user interface.** (Estimation of duration: 2 days)

A basic user interface will be implemented with description and may be varied during further implementation.

**2.3 Create Use-Case Diagram.** (Estimation of duration: 1 day)

A use case diagram will be generated to help understanding the use cases of the program. It contains most of the use case that people interact with the program.

**3.1 Code for system structure.** (Estimation of duration: 3 weeks)

Implement the program which meets all functional requirements. Notice that the actual duration time may be varied due to unpredictable events.

**3.2 Code for UI.** (Estimation of duration: 1 week)

Implement the user interface for the program, the UI should be a user-friendly interface which is easy for the user to interact with.

**3.3 User Manual.** (Estimation of duration: 2 days)

A user manual will be created in order to help all potential user to use the program. User can simply follow the instructions in the manual to use the program.

**4.1 Testing plan.** (Estimation of duration: 2 day)

A testing plan will be made to test the program.

**4.2 Unit test.** (Estimation of duration: 1 day)

Follow the testing plan and provide unit test to the program. The results will be record for further use.

**4.3 Coverage report.** (Estimation of duration: 1 day)

In the coverage report, the results from unit test will be evaluated.

**4.4 Requirement acceptance test.** (Estimation of duration: 1 day)

Follow the testing plan and perform test to the program. The program should meet all requirements and ready to release.

**5.1 Executive summary.** (Estimation of duration: 1 day)

This summary will give client a quick overview of this whole project, including background information and the whole process of this project.

**5.2 End of project.** (Estimation of duration: 0 day)

This is just the day when the project ends. No specific actions needed.

# Gantt Chart

Consider the Gantt Chart is too huge to put into this document, please refer to the Gantt Chart.xlsx document for the full version of Gantt Chart. Note that the current gantt chart is just for planning the project, the actual duration and start/complete day can be varied. The updated gantt chart will be presented at the end of the project.