Project Plan

<Project Name>

Student Names

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# Introduction

*In the modern era of the sharing economy, platforms like Airbnb have revolutionized the way travellers experience cities and locals interact with tourism. As part of the Inside Airbnb initiative, our project aims to analyse and visualize the impact of Airbnb listings on different neighbourhoods within Sydney, NSW, Australia. This document outlines the plan for developing a data analysis and visualization tool that will empower users to gain insights into the distribution of property prices, the prevalence of specific amenities, and the sentiment of customer reviews related to cleanliness.*

## Background

Sydney's prominence as a global travel destination has led to a significant presence of Airbnb listings. Understanding the dynamics of these listings and their effect on neighbourhoods is crucial for urban planning, tourism management, and the local economy. Our project seeks to address this challenge by providing a tool that extracts actionable insights from Airbnb data.

## Scope

The scope of our project includes the creation of a user-friendly tool that allows users to explore Airbnb data for Sydney neighbourhoods. Users will be able to select a specific period, suburb, and enter keywords to filter the results. The tool will facilitate the analysis of property prices, the prevalence of keywords such as "pool" or "pet," and the sentiment of customer reviews related to cleanliness. While we aim to provide valuable insights, the project acknowledges limitations in terms of the depth of analysis and specific neighbourhood impacts that may arise.

## Document contents

The following sections will provide a detailed breakdown of the project plan, including the Work Breakdown Structure, Activity Definition and Estimation, and the Gantt Chart for scheduling and time estimation.

*Include some background information about the problem, the scope and what this document will contain.*

# Work Breakdown Structure

2.0 Work Breakdown Structure

2.1 Project Initiation

2.1.1 Define project scope and objectives

2.1.2 Establish project team and roles

2.1.3 Review available datasets and resources

2.2 User Interface Development

2.2.1 Design main interface layout

2.2.2 Implement period selection UI

2.2.3 Implement suburb selection UI

2.2.4 Implement keyword entry UI

2.3 Data Preparation and Preprocessing

2.3.1 Load and preprocess dataset

2.3.2 Handle missing values and outliers

2.4 Analysis and Visualization Functions

2.4.1 Develop function for price distribution chart

2.4.2 Create keyword search functionality

2.4.3 Implement cleanliness analysis function

2.4.4 Develop neighbourhood insights functions

2.5 User Experience Testing

2.5.1 Conduct usability testing on user interface

2.5.2 Test data retrieval and analysis functions

2.5.3 Address user feedback and improve UI/UX

2.6 Documentation and Reporting

2.6.1 Prepare user guide and documentation

2.6.2 Create project plan and software design documents

2.6.3 Write a final project report

2.7 Project Review and Closure

2.7.1 Review project goals and deliverables

2.7.2 Ensure all code and documentation is properly organized

2.7.3 Submit the final project

# Activity Definition & Estimation

3.0 Activity Definition & Estimation

3.1 Project Initiation

3.1.1 Define project scope and objectives - Estimation: 2 days

3.1.2 Establish project team and roles - Estimation: 1 day

3.1.3 Review available datasets and resources - Estimation: 1 day

3.2 User Interface Development

3.2.1 Design main interface layout - Estimation: 2 days

3.2.2 Implement period selection UI - Estimation: 3 days

3.2.3 Implement suburb selection UI - Estimation: 3 days

3.2.4 Implement keyword entry UI - Estimation: 2 days

3.3 Data Preparation and Preprocessing

3.3.1 Load and preprocess dataset - Estimation: 2 days

3.3.2 Handle missing values and outliers - Estimation: 1 day

3.4 Analysis and Visualization Functions

3.4.1 Develop function for price distribution chart - Estimation: 3 days

3.4.2 Create keyword search functionality - Estimation: 2 days

3.4.3 Implement cleanliness analysis function - Estimation: 3 days

3.4.4 Develop neighbourhood insights functions - Estimation: 4 days

3.5 User Experience Testing

3.5.1 Conduct usability testing on user interface - Estimation: 2 days

3.5.2 Test data retrieval and analysis functions - Estimation: 3 days

3.5.3 Address user feedback and improve UI/UX - Estimation: 2 days

3.6 Documentation and Reporting

3.6.1 Prepare user guide and documentation - Estimation: 2 days

3.6.2 Create project plan and software design documents - Estimation: 1 day

3.6.3 Write a final project report - Estimation: 2 days

3.7 Project Review and Closure

3.7.1 Review project goals and deliverables - Estimation: 1 day

3.7.2 Ensure all code and documentation is properly organized - Estimation: 1 day

3.7.3 Submit the final project - Estimation: 1 day

*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.*