COMPSYS302 Project 2 Design Docs

Team 1 - Yulia Pechorina and Nick Roe

Introduction

Our Android app "Bike Showcase" will provide a platform for users to view bikes by category and search term. The user will also be able to see detailed information and images of each bike. The use case diagram below shows the main ways a user will be able to interact with our app. The system diagram shows the relationships between different classes in our software, and their fields/attributes and methods. The design mock-ups show our vision for how the app will look at the end of development. The project schedule shows the breakdown of tasks and a timeframe for completion.

System Modelling

Fig. 1 is a high-level use case diagram showing the primary functionalities of our bike showcase app.
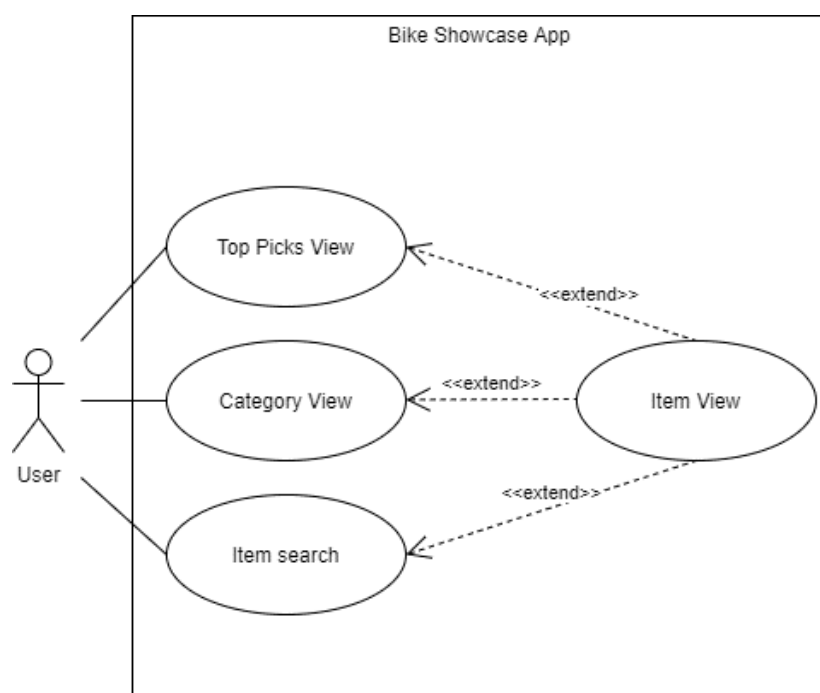

Figure 1: Use Case Diagram

The app's users can interact with the "Top Picks View" use case. This use case allows the user to look at the most viewed bikes. The entry condition for this is that the user opens the app successfully, and scrolls through the Top Picks panel. The exit conditions are that the user clicks out of the Top Picks panel or clicks one of the Top Pick bikes.

The app's users can also interact with the "Category View" use case. This use case allows the user to look through a list of bikes in their chosen category. The entry conditions for this are that the user opens the app successfully and clicks on one of the bike categories. The exit conditions for this are that the user presses a back navigation button or clicks on one of the bikes in the category.

The app's users can also interact with the "Item Search" use case which allows them to search for a bike and view a list of search results. The entry condition for this is that the user searches for a bike in the search bar. The exit conditions for this are that the user presses a back navigation button or clicks on one of the search results.

The app's users can also interact with the "Item View" use case, which allows them to view pictures of a selected bike, view the category the bike belongs to, and read a description of the bike. This use case extends the "Top Picks View", "Category View", and "Item Search" use cases, as the user may want to view an item after they have interacted with one of these use cases.
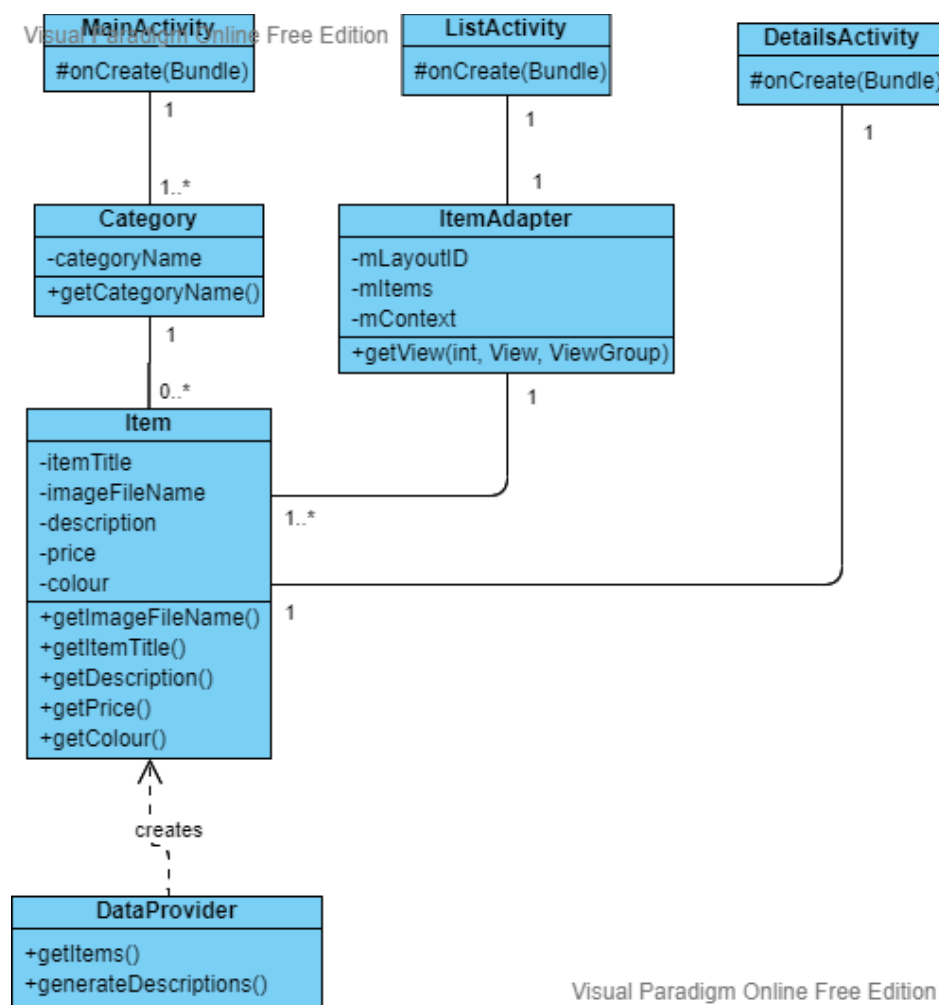
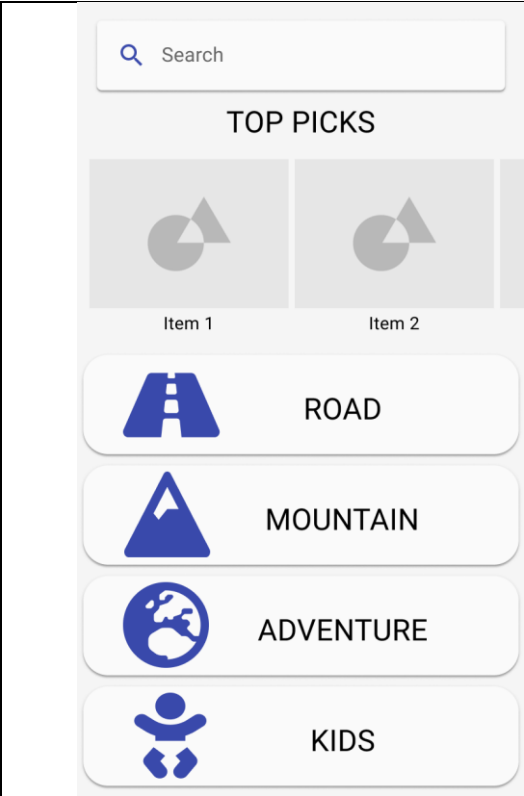System Design

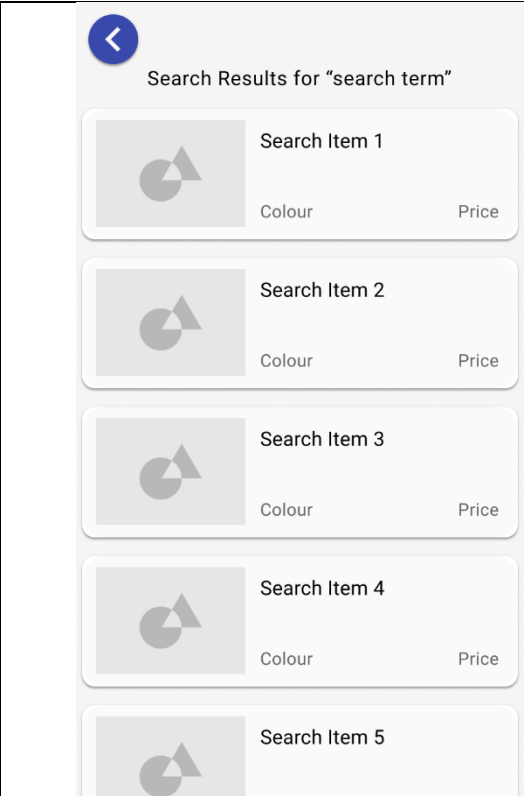*Figure 2: System Diagram*

GUI Design Mocks

Figure 3: MainWindow
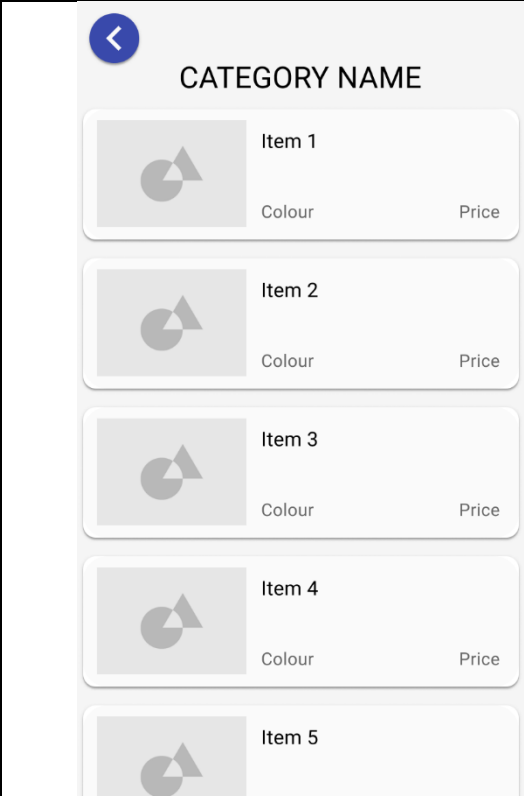

Figure 4: Search Functionalities
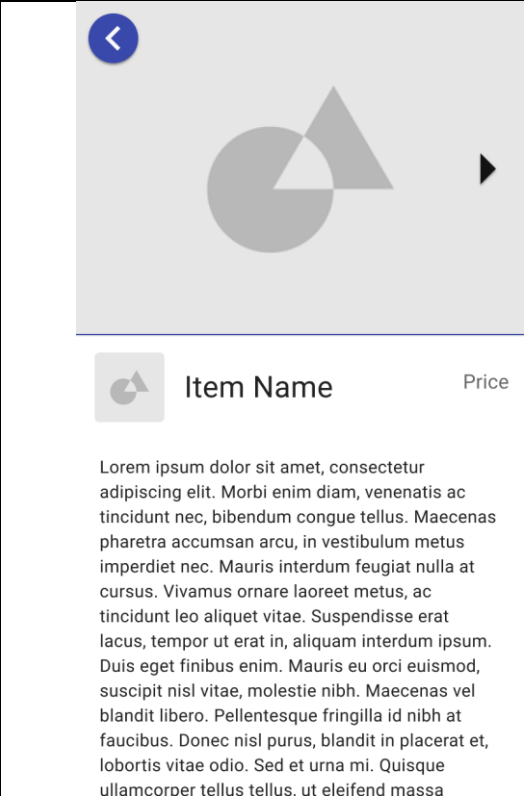

Figure 5: ListActivity

Figure 6: DetailsActivity

Project Schedule

Both team members are involved in each stage of this project, including planning, design, and implementation. For the design docs, both Yulia and Nick collaborated on the introduction and project schedule. Yulia was responsible for the System Modelling and GUI Design Mocks, while Nick was responsible for the System Diagram. We have decided to split the remaining work as evenly as possible and to assign a variety of jobs to each member. Nick oversees collecting bike data and importing it into the DataProvider class, while Yulia is responsible for implementing most android activities. Both members are responsible for preparing the slides and script for the project demonstration. The breakdown responsibilities for each member are documented in the Gantt Chart provided in Figure 7. In addition to this, Trello is used for project management, which can be accessed here:

https://trello.com/invite/b/gh9IqNO9/ad91d46980df934f6a4f3743fa9b2339/project-management

PROJECT 2

Team 1
Yulia Pechorina, Nick Roe

Project Start Date: 11/05/2021
Scrolling Increment: 0

May | June

Milestone Description	Category	Assigned To	Progress	Start	No. Days
Design Docs					
Introduction	On Track	Yulia, Nick	100%	13/05/2021	1
System Modelling	On Track	Yulia	100%	11/05/2021	6
System Design	On Track	Nick	100%	11/05/2021	6
GUI Design Mocks	On Track	Yulia	100%	11/05/2021	6
Project Schedule	On Track	Yulia, Nick	100%	11/05/2021	3
App Implementation					
Collect Bike Data	Low Risk	Nick	0%	17/05/2021	3
DataProvider	Low Risk	Nick	0%	20/05/2021	3
MainActivity	Low Risk	Yulia	0%	17/05/2021	3
ListActivity	Low Risk	Nick	0%	23/05/2021	3
RecyclerView	Low Risk	Yulia	0%	20/05/2021	3
DetailsActivity	Low Risk	Yulia	0%	23/05/2021	3
App Improvements					
Transitions	Low Risk	Nick	0%	26/05/2021	3
Responsive-resize	Low Risk	Yulia	0%	26/05/2021	2
Aesthetics	Low Risk	Yulia	0%	28/05/2021	1
Project Demo					
Slides	Low Risk	Yulia, Nick	0%	29/05/2021	1
Presentation Practice	Low Risk	Yulia, Nick	0%	30/05/2021	1
Milestones					
Design Docs	Milestone	Yulia, Nick	100%	16/05/2021	1
App Implementation	Milestone	Yulia, Nick	0%	26/05/2021	1
App Improvements	Milestone	Yulia, Nick	0%	28/05/2021	1
Project Demo	Milestone	Yulia, Nick	0%	31/05/2021	1

Figure 7: Gantt Chart