ParkFinder
Detailed Design Document
SE 3A04

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1 Introduction

This section provides an brief overview of the entire document.

1.1 Purpose

The purpose of this Detailed Design Document is to provide a description for the detailed design of the ParkFinder app. The description of the design will allow anyone who will be involved in the development of the system to proceed with an understanding of what is to be built and how it is expected to be built. This document provides a description of the system's classes and static structure, as well as diagrams that describe the dynamic behaviour of a system in response to external stimuli, and diagrams that describe the interactions among classes in terms of an exchange of messages over time.

The intended readers of this document include all of the project's stakeholders. This includes the end-user, the software engineers, and the park authorities.

1.2 System Description

The software system being described in this document is called the ParkFinder app. This system will have datasets of information about parks from all over the world and will allow the client to use search methods in order to find parks based on the clients' desired attributes. The app is meant to be used anywhere in the world, provided an Android or iOS device with the app installed. This provides clients with an easier, faster, and more efficient way to look up parks and acquire information such as the location, facilities, activities, and rentals that the parks provide.

1.3 Overview

The remainder of this document will contain diagrams and information that will describe the details for the software system being built. This will include State Charts for controller classes in Section 2, Sequence Diagrams in Section 3, and a Detailed Class Diagram in Section 4.

2 State Charts for Controller Classes

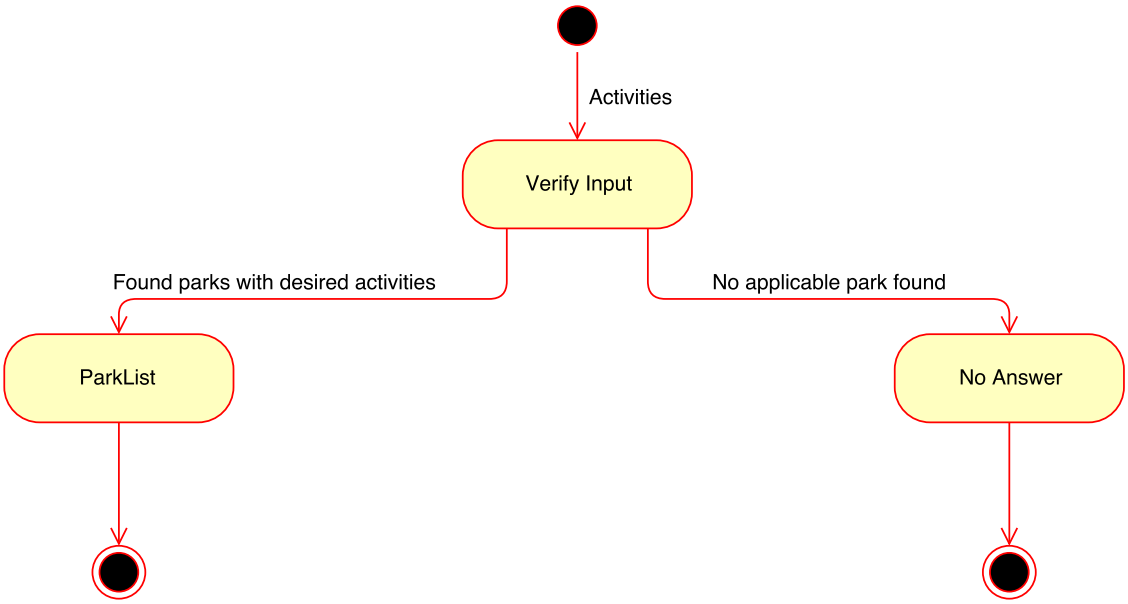

Figure 1: State diagram for the Activities Expert

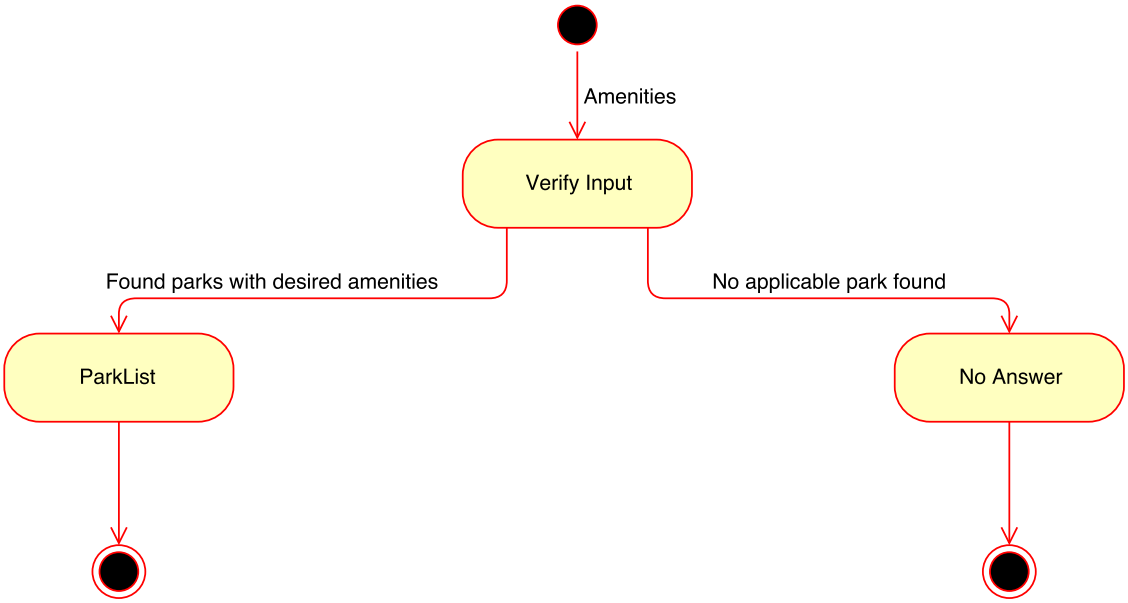

Figure 2: State diagram for the Amenities Expert

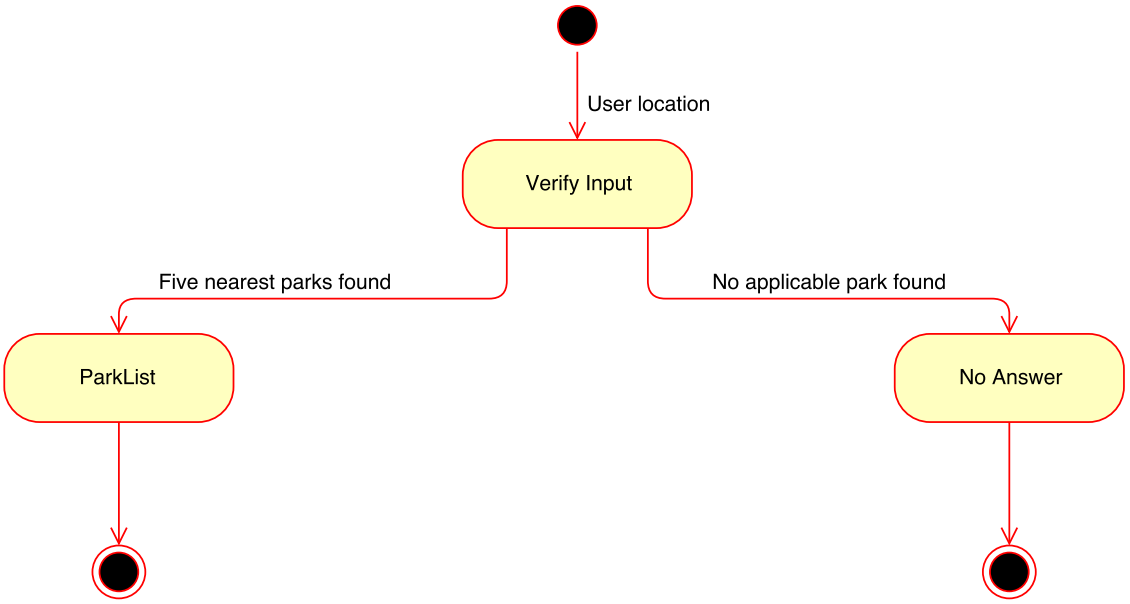

Figure 3: State diagram for the Location Expert

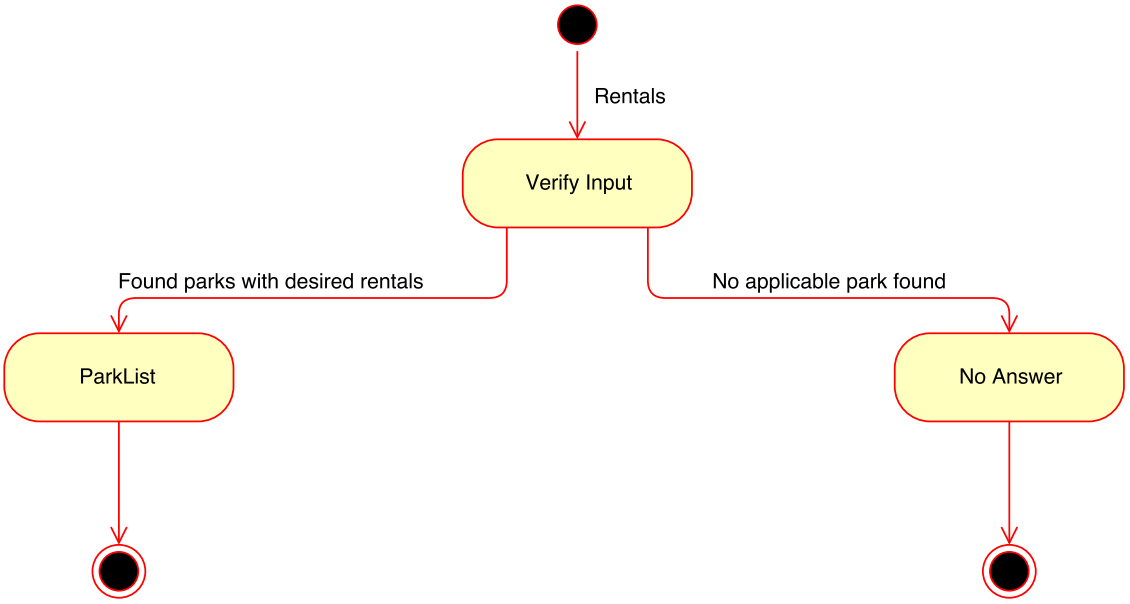

Figure 4: State diagram for the Rentals Expert

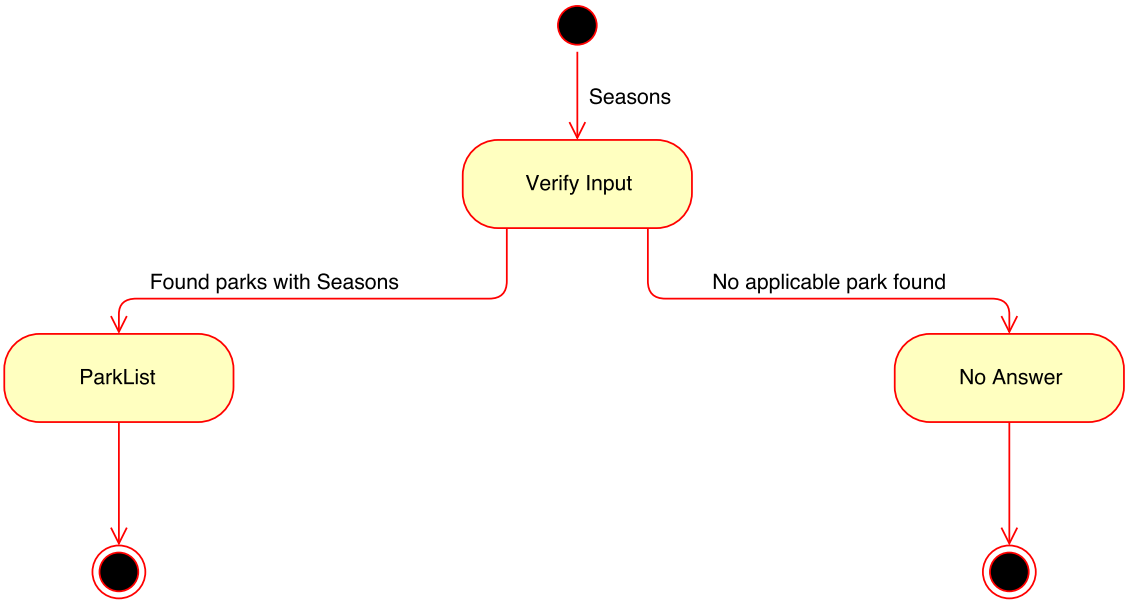

Figure 5: State diagram for the Seasons Expert

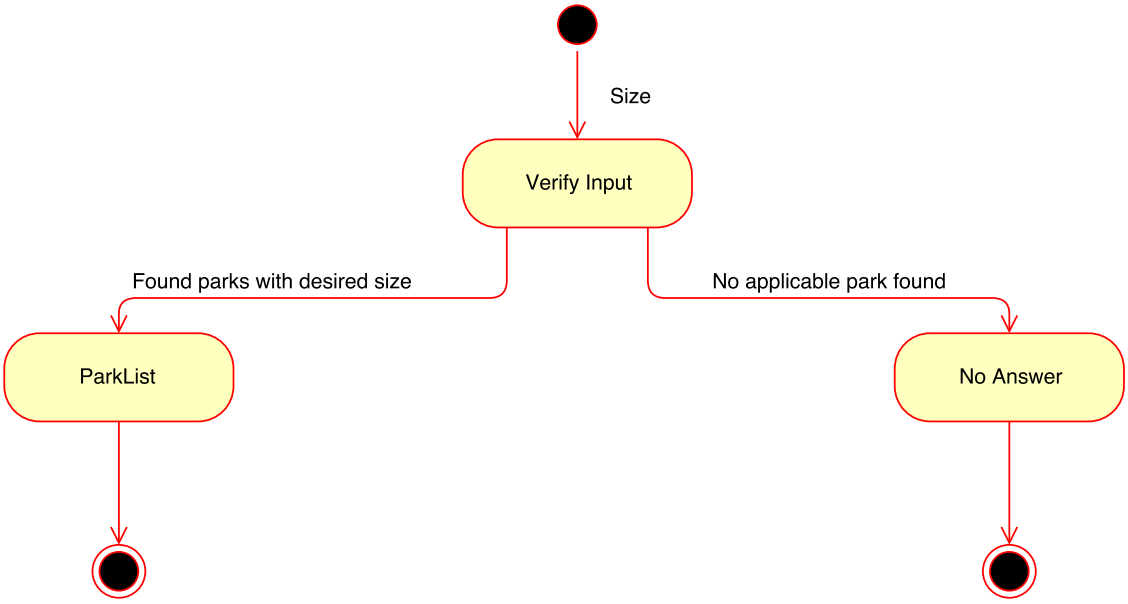

Figure 6: State diagram for the Size Expert

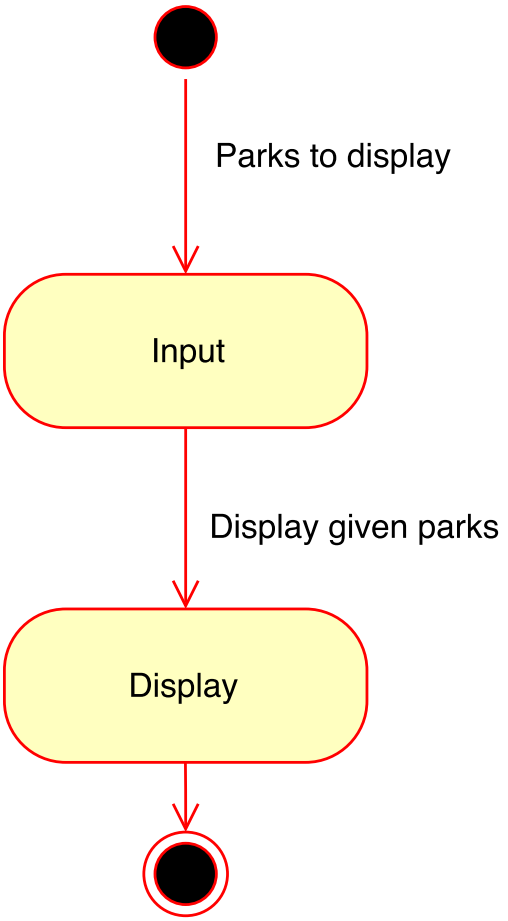

Figure 7: State diagram for the Map Agent

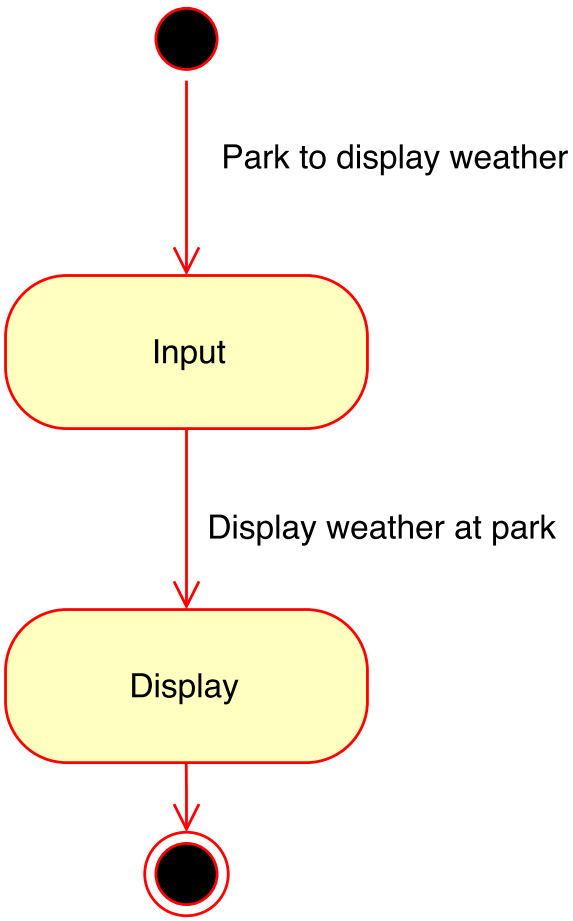

Figure 8: State diagram for the Weather Agent

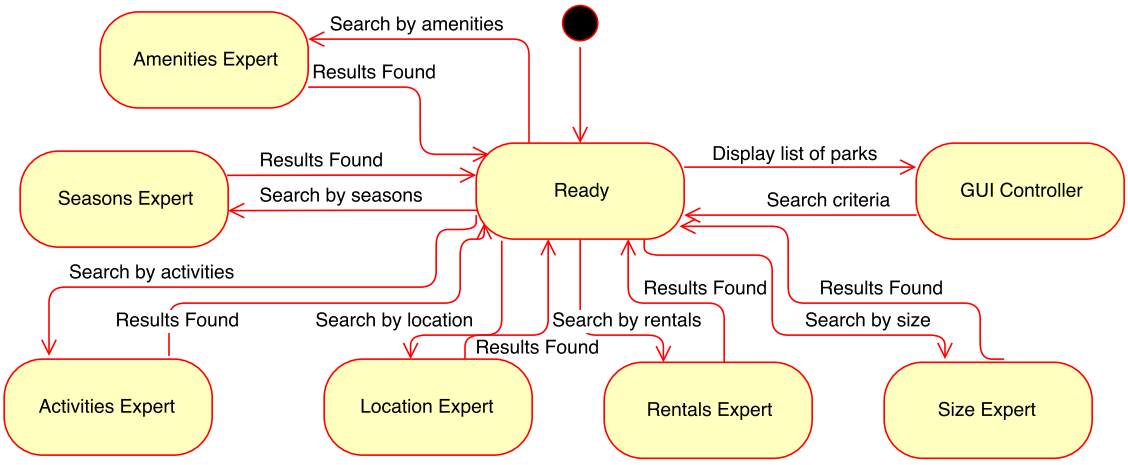

Figure 9: State diagram for the Blackboard

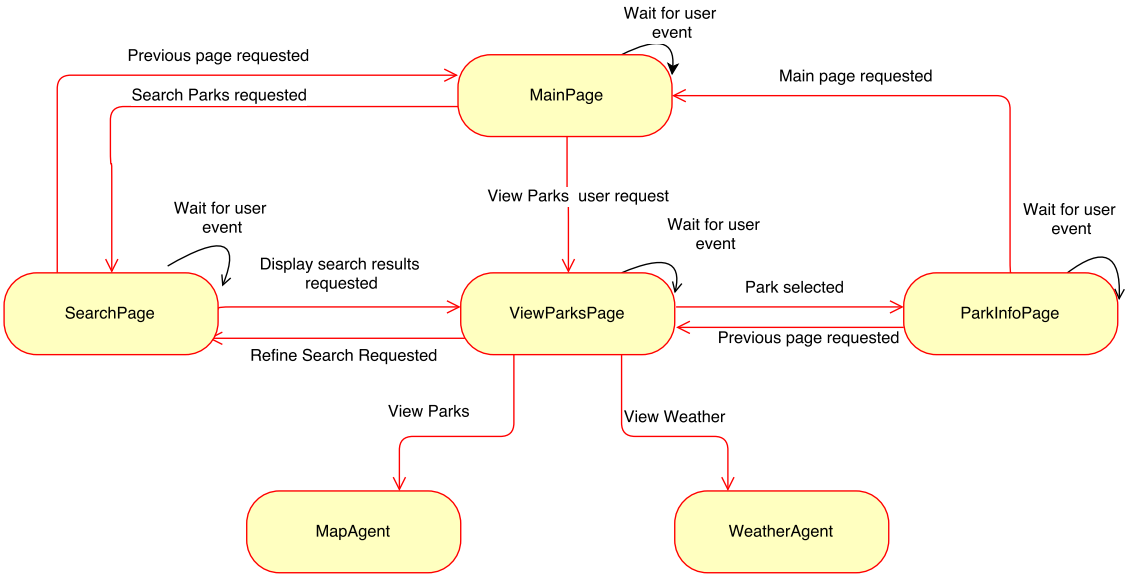

Figure 10: State diagram for the GUI Controller

3 Sequence Diagrams

This section provides a sequence diagram for each use case of the application.

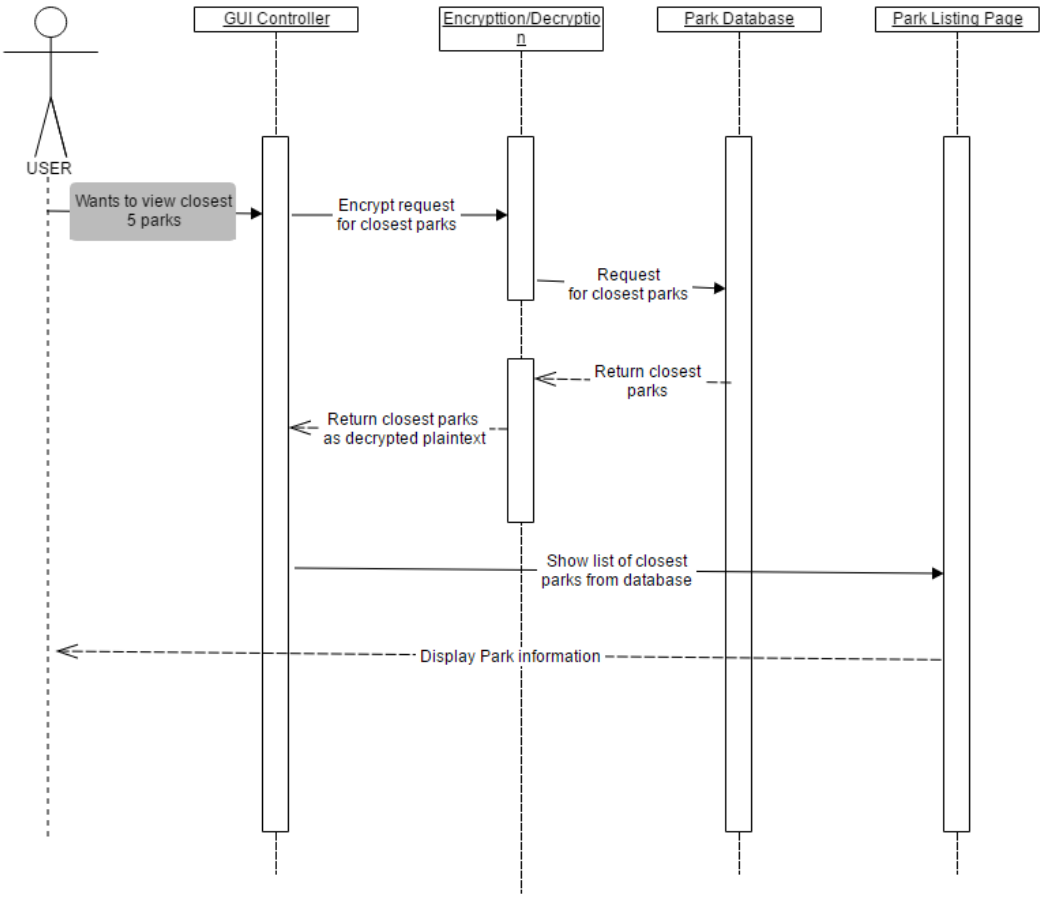

Figure 11: Sequence diagram for the closest 5 park use case

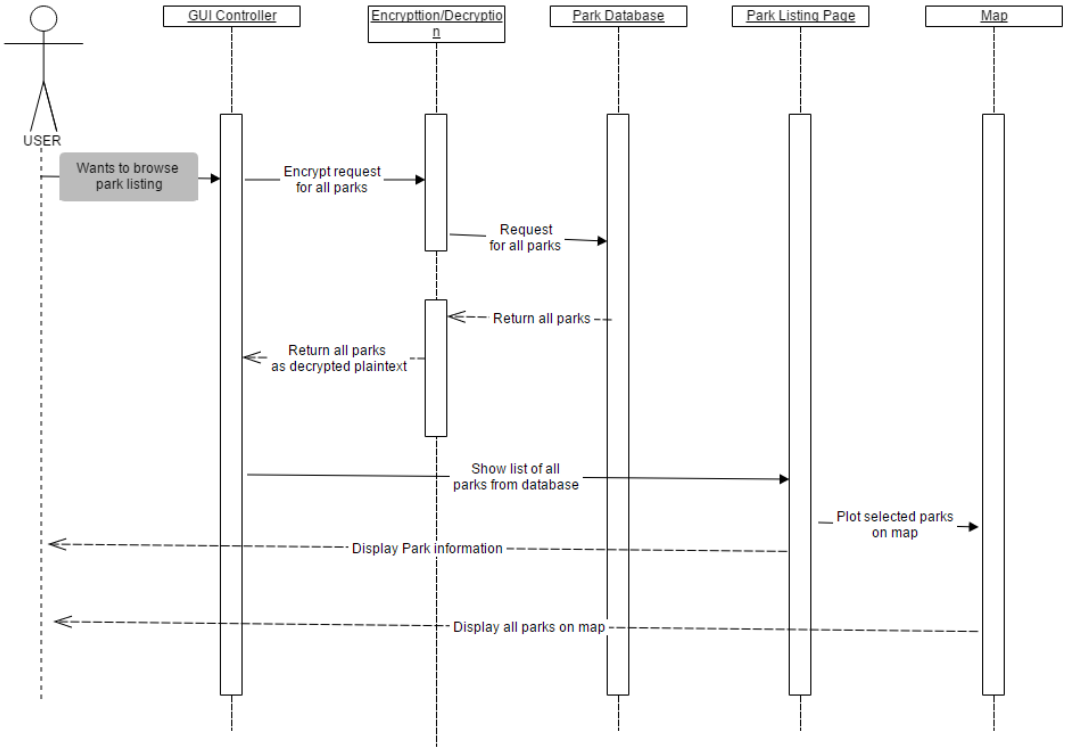

Figure 12: Sequence diagram for the browse listing use case

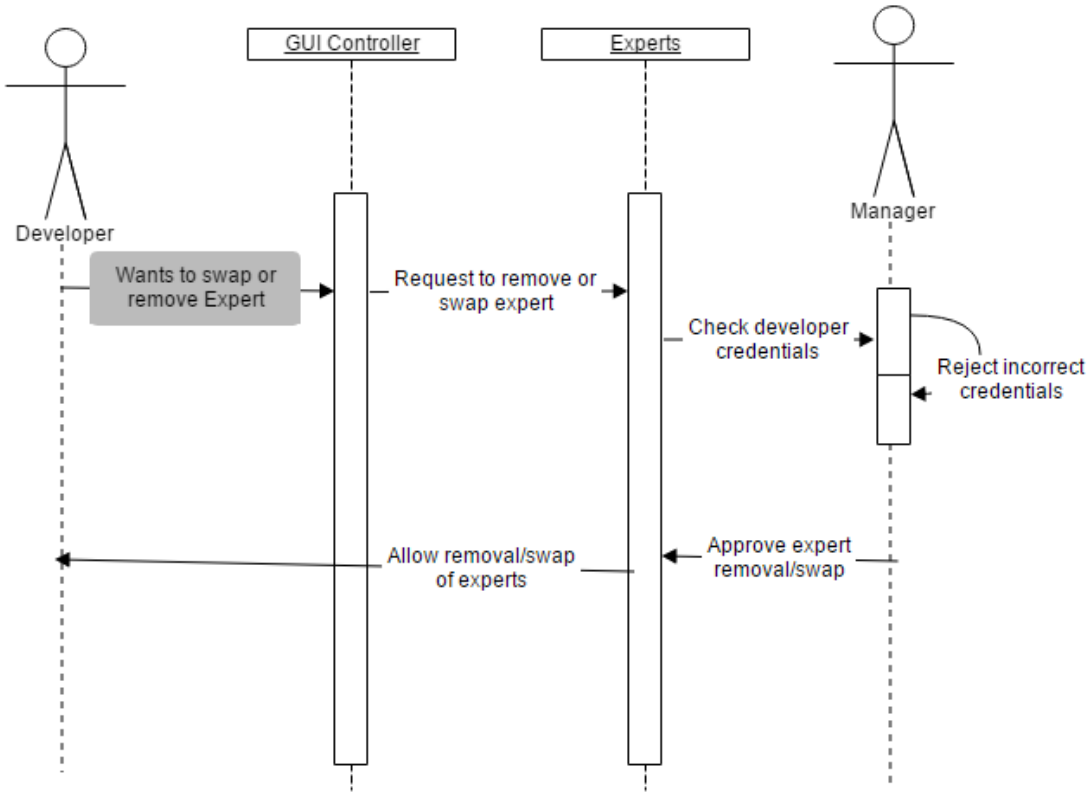

Figure 13: Sequence diagram for the swap/remove developer/manager use case

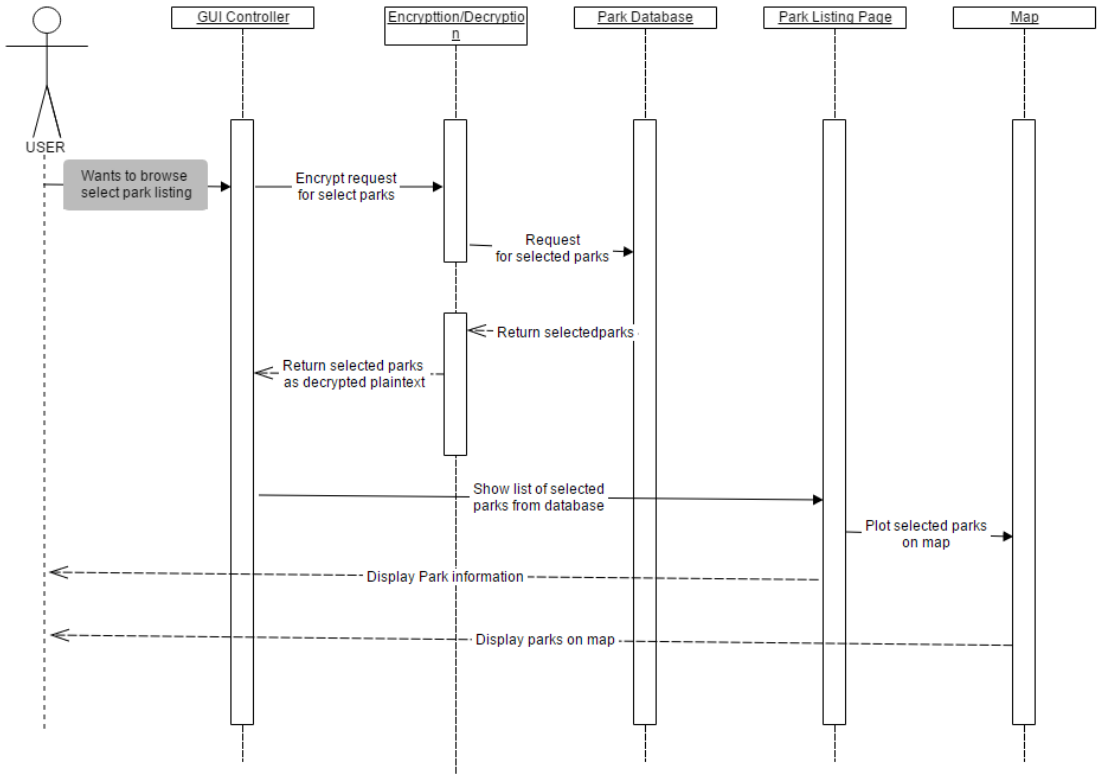

Figure 14: Sequence diagram for the select listing use case

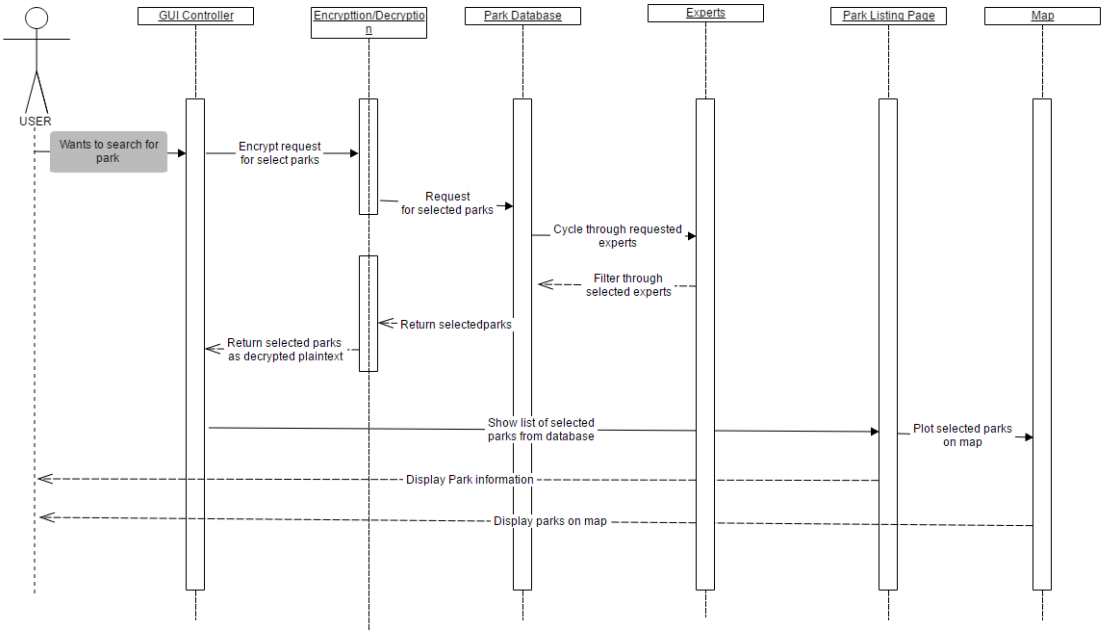

Figure 15: Sequence diagram for the filter with experts use case

4 Detailed Class Diagram

In this section the class diagram for each main package of the parkFinder app will be displayed individually, then they will all be combined into one large class diagram.

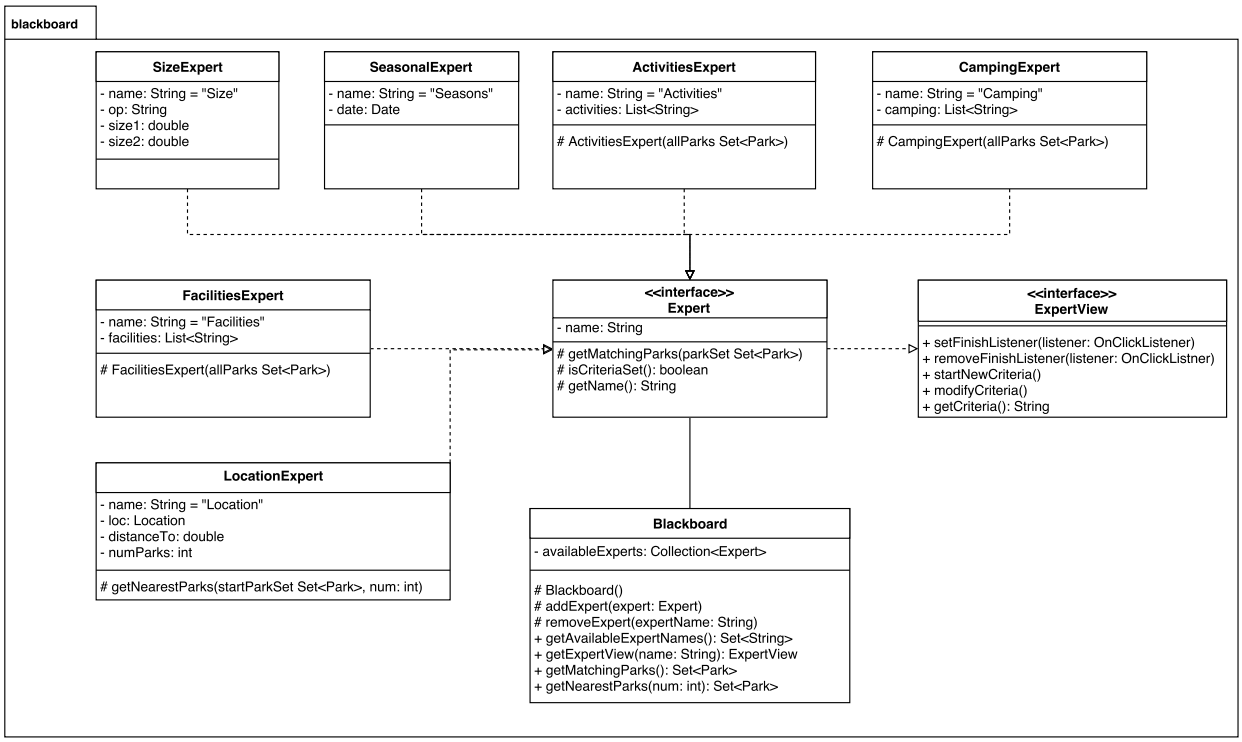

Figure 16: Class Diagram of the blackboard package

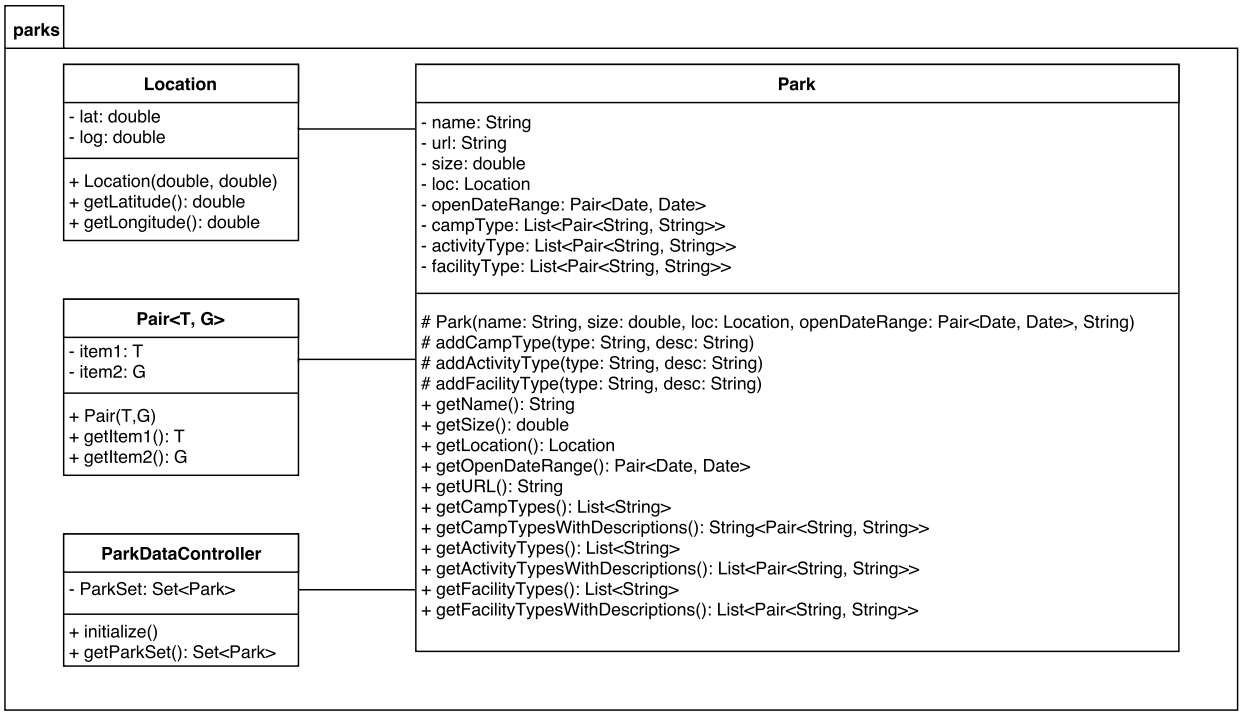

Figure 17: Class Diagram for the parks package

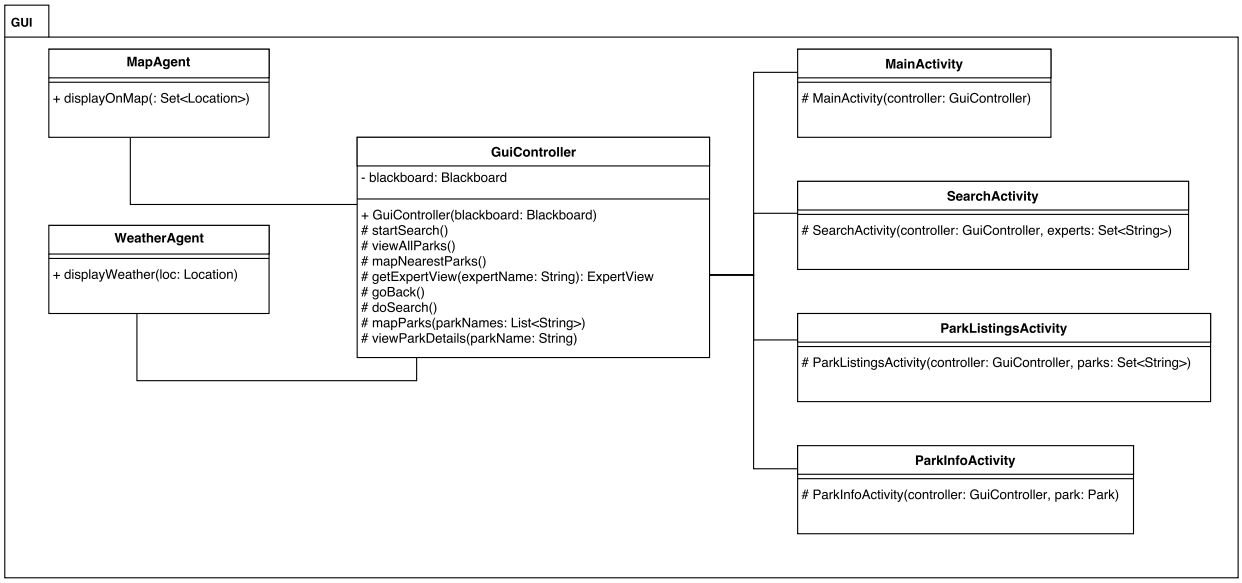

Figure 18: Class Diagram for the gui package

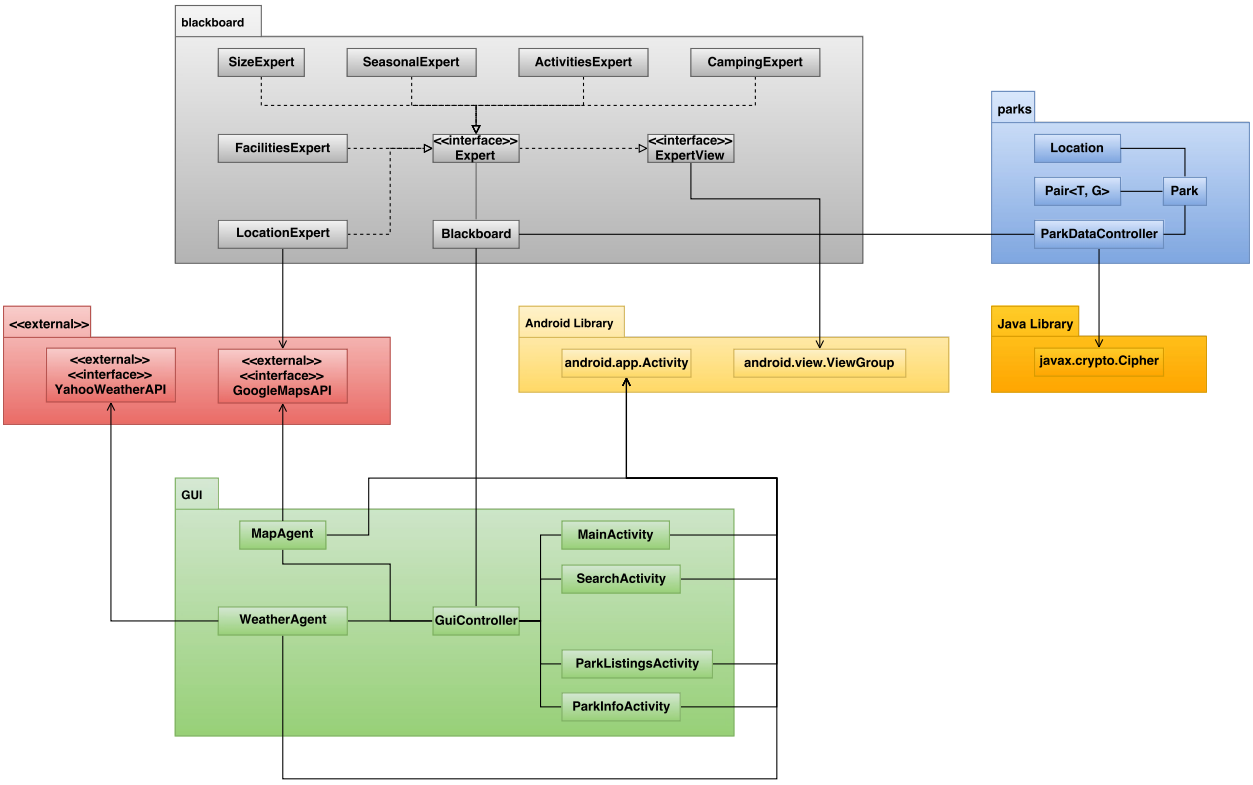

Figure 19: Class Diagram for the entire ParkFinder App

A Division of Labour

Contributions	Name	Signature
Section 3	Abdul Ahad	
Section 1	Salma Belal	
Section 2	Josh Chatten	
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Section 4	Robert Stuart	