NHS Wales injectable medicines guide Android application

Report Name	Design Specification
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1 Introduction

1.1 Purpose of this document

The purpose of the document is to provide documentation for the architectural design of the NHS Wales injectable medicines guide Android application. It will show the class's which should be created and the methods within them, as well as how they're linked, this will be achieved through a class diagram. This document will also outline the project user interface design through UI mock-up wireframes.

1.2 Project overview

The main focus of this project is to produce a application for Android which will aid NHS medical staff in obtaining information on injectable medicines. The user will be able to search through a list of drugs by there title. Upon selecting a drug they will be able to view a detailed monograph for that drug. User will also be able to calculate dosage and infusion rates using the application.

2 Architectural design

This section will contain the architectural for the mobile application. This section will include a use case diagram and a class diagram for the system.

2.1 Use case diagram

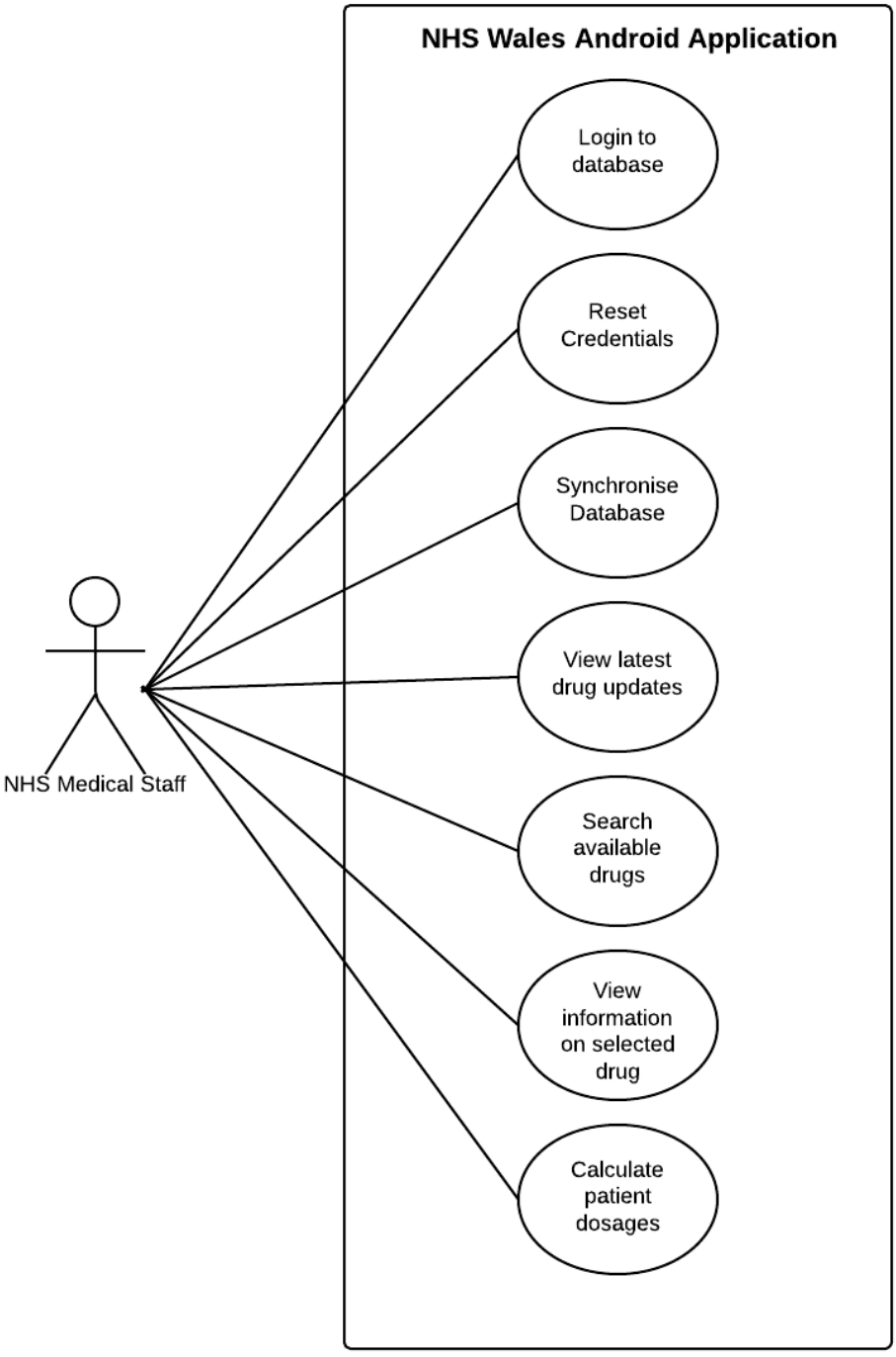

Figure 1: Use case diagram for the NHS application

2.1.1 Use case descriptions

Login to database A user will be able to authenticate themselves with the database using their NHS login credentials.

Synchronise database Upon authenticating themselves the user will be able to download a complete copy of the available database to their device.

View latest drug updates The user will how many monographs have been added or removed from the live database since they last synchronised their local one.

Search available drugs The user will be able to easily search through all the drugs within the database. The search will automatically suggest suitable results.

View information on selected drug Upon selecting a drug the user will be able to view a monograph for that drug. They will be able to select each section of the monograph they would like to read.

Calculate patient dosages The user will be able to calculate the infusion rate and dosage for a given patient. This information will be validated for user input error.

2.2 Class diagram

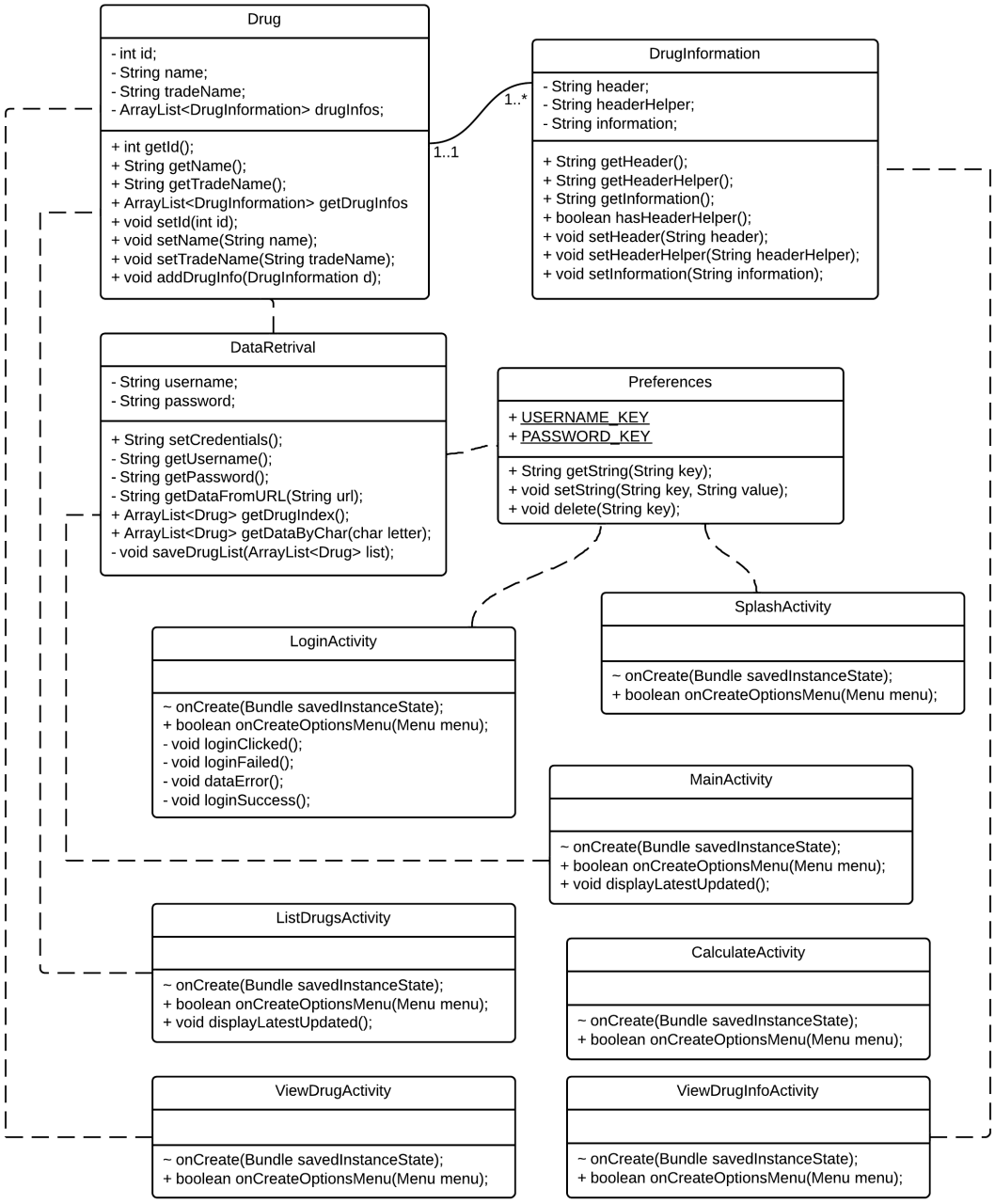

Figure 2: Use case diagram for the NHS application

2.2.1 Class diagram descriptions

Drug This class represents a drug in the database

DrugInformation This class represents a piece of the monographs information about the drug.

DataRetrival This class is responsible for authenticating the user and synchronising the local database with the live database.

Preferences This class is responsible for accessing the SharedPreferences of the application. It will be used to store and retrieve preferences

SlashActivity This is the loading screen when the app first launches

LoginActivity This is the activity which the user will use to authenticate themselves

MainActivity This class for the main activity, this activity will alert the user of any changes within the live database as well as let the user update their database and begin searching.

ListDrugsActivity Class for the list drugs activity, this activity will list all drugs stored in the database, allowing users to search through them.

ViewDrugActivity Class for the view drug activity, this activity will display simple information about the drug and allow the user to navigate to detailed information

ViewDrugInfoActivity Class for the drug information activity, this activity will display detailed information on a specific piece of the drugs monograph.

CalculateActivity Class for the calculate activity, this activity will allow the user to calculate dosage and infusion rates for a patient.