Gyalpozhing College of Information Technology
Royal University of Bhutan

ITW202 Mobile Application

Assignment 2

Section: B

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1. Introduction

a. Purpose:

AIM: To develop Druk Seljuen application based on android.

The main objective of this application are:

a) To develop Free and Offline Android application.

b) To provide an interface through which it will help monks to reduce their work load.

c) To perform functional test and user acceptance test before the application is formally launched.

b. Scope:

User Scope:

Scope of the project is within Bhutan because it mainly focused on Bhutanese religion rituals and prayers.

System Scope:

To develop mobile application that deals with following features: 1. Everyone can access without internet connection.(Offline based app)

2. No need to register or login to this application.

3. It contains different type of rituals that is performed in Bhutan.

5. Users can click on any ritual icon according to their need.

6. Users can use the search button to find the rituals they need.

7. Users can provide feedback.

8. Users can also share the app.

2. Requirements

a.Functional Requirements:

Describe each feature of your application.

1. Everyone can access without internet connection.(Offline based app)

2. No need to register or login to this application.

3. It contains different type of rituals that is performed in Bhutan.

5. Users can click on any ritual icon according to their need.

6. Users can use the search button to find the rituals they need.

7. Users can provide feedback.

8. Users can also share the app.

Druk Seljuen app will have six different types of rituals. Under each ritual it will have around two to three sub-rituals. Users can click on any ritual button according to their needs and also they can use search button to search ritual that they want to perform. It can work without internet connection and user do not have to register or login, everyone can access to it without any problem.

b.Non Functional Requirements:

• The app can be easily portable to different versions of android and is independent of the size of any android phone and tablets.

• The app will work offline.

• The orientation of the app will be in both portrait and landscape.

• The application will be user friendly.

• The application will include developers information and can be shared. It will also consist of features such as rating the application, giving feedback section and exit option.

c.Software Requirement:

For Developer:

1. Java version : Java SE jdk 8 and above.

2. Android Studio version 4 and above.

3. Android SDK-16 and above.

4. Operating System : Ubuntu and Windows.

5. SQLite

• SQLite is a database engine. It is software that allows users to interact with a relational database. In SQLite, a database is stored in a single file a trait that distinguishes it from other database engines. This fact allows for a great deal of accessibility: copying a database is no more complicated than copying the file that stores the data, sharing a database can mean sending an email attachment.

• SQLite version : 3.31.1

6. DB Browser

• DB Browser for SQLite(DB4S) is a high quality, visual, open source tool to create, design, and edit database files compatible with SQLite.DB4S is for users and developers who want to create, search, and edit databases. DB4S uses a familiar spreadsheet-like interface, and complicated SQL commands do not have to be learned.

• Version 3.12.1

Hardware Requirement:

For Developer:

1. RAM : 4-8 GB 2. Processors: Core i3 (2.00GHz)

3. Disk Capacity : 400Mb

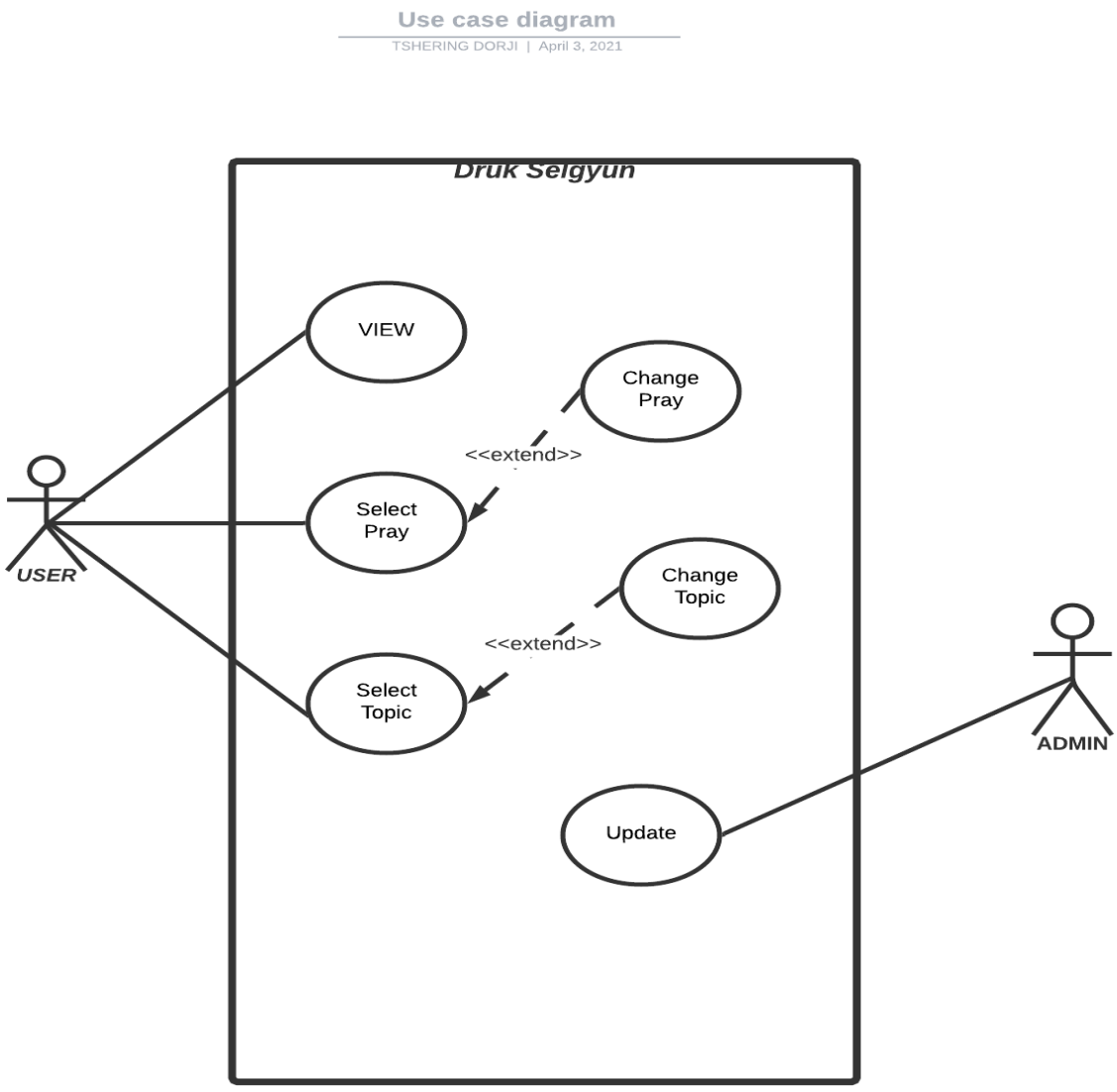
4. Screen Resolution : 1280x800

For User:

Mobile Phone: With Android OS

3. System Design

Usecase Diagram



A use case represents the functionality of a system as seen by external agents (actors) who communicate with it from a specific perspective. Its primary goal is to aid the development team in visualizing the system's functional requirements, including the relationships between actors and critical processes, as well as between various use cases. Any app user has been marked as the

project's actor. The interactions of the actor and its functionalities are shown below.

The app consist of two actors:

1. User

2. Admin

The functionality of user are:

1. View

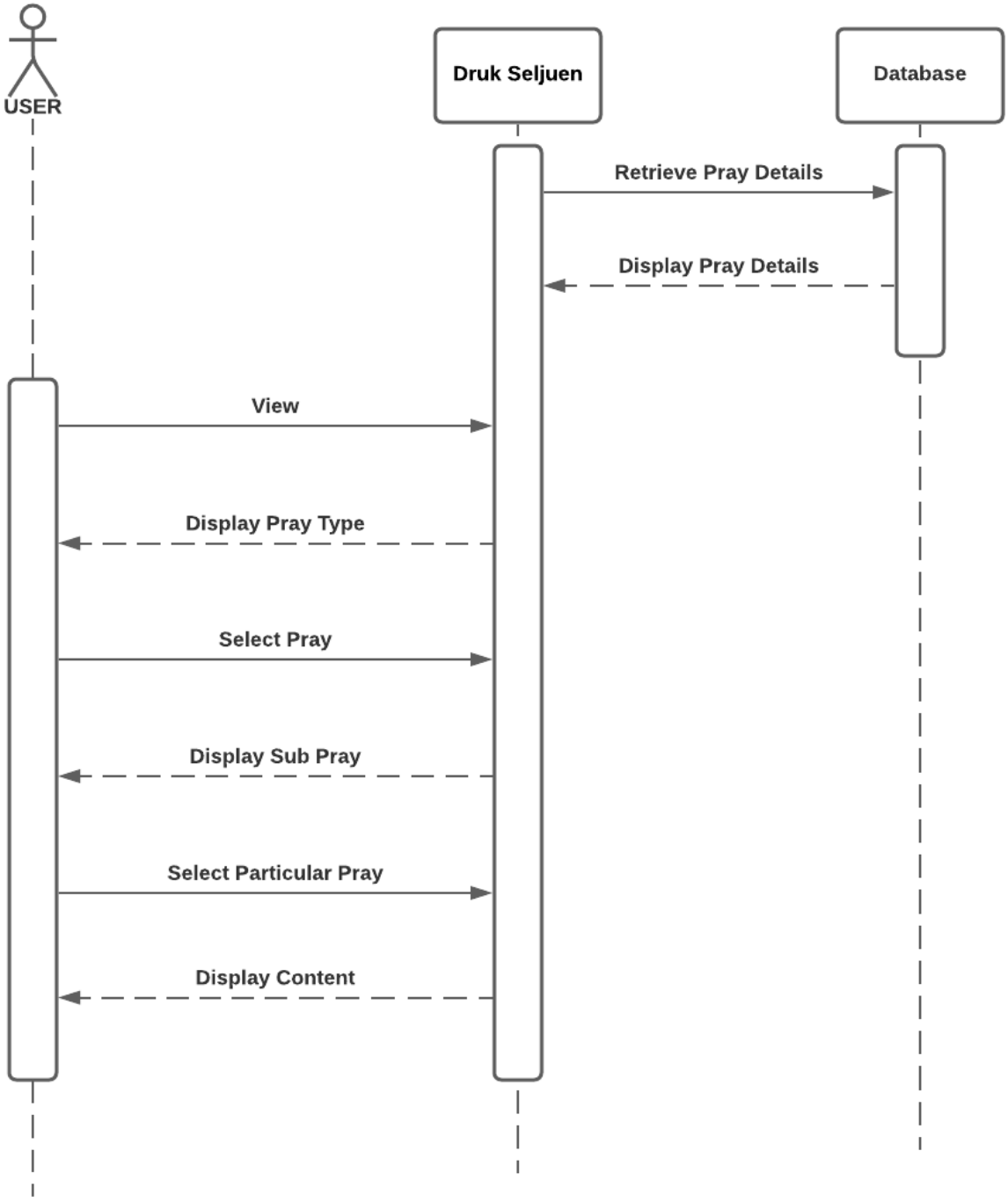
2. Select Pray Type

3. Select Sub Pray

The functionality of Admin is:

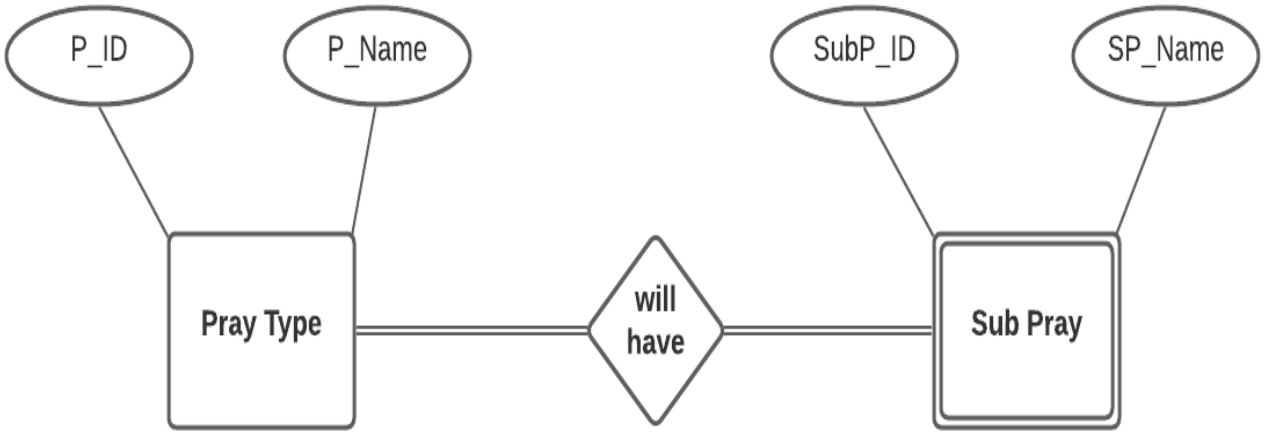
1. Update the app

Sequence Diagram



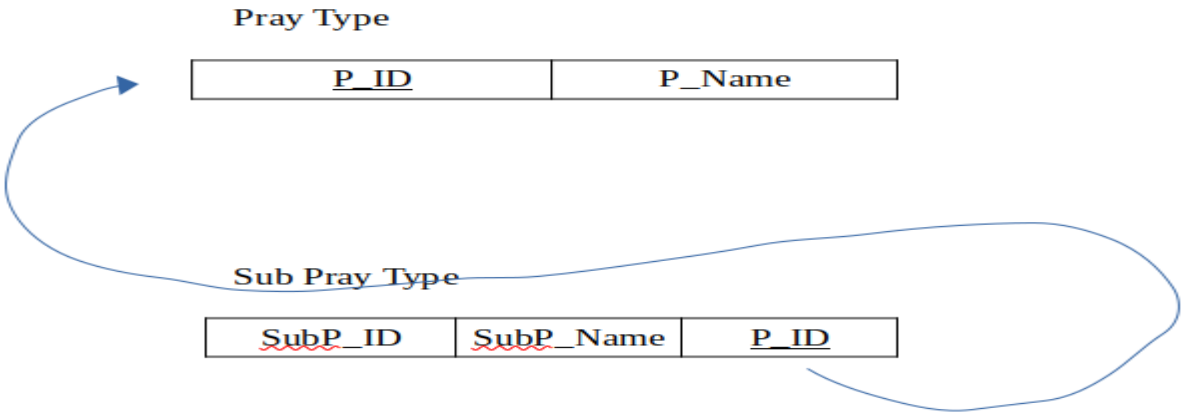
Sequence Diagrams are interaction diagrams that details how the operations are carried out. They capture the interaction between the objects in context of a collaboration. The diagrams explains the detail logic behind the application

Entity Relationship Diagram (ERD)



There are two entity in my application they are pray type and sub pray. Pray type consist of attribute P_ID which is primary key that identifies the pray type uniquely and P_Name that stores the names of the pray type. Sub pray consist of attribute SubP_ID and SP_Name.

Relation Schema Diagram



1. Table Name:

- Pray Type

- Sub Pray

Primary Key:

- P_ID is the primary key of pray type.

- SubP_ID and P_ID is the primary key of sub pray.

Foreign Key:

- P_ID in the sub pray is a foreign key.