

BSc (Hons) in Information Technology Year 4

Lab 03 - In -Lab Activity 01 - Flutter

SE4010 – CTSE

Semester 1, 2023

In Lab Assessment Overview

This assessment is designed to evaluate your knowledge of Flutter and Firebase integration. You will be given an hour to complete the assessment, which consists of several coding challenges. Each challenge will test a different aspect of your knowledge of Flutter and Firebase integration.

Requirements

- A laptop with Flutter and Firebase installed
- An active Firebase account

Assessment Tasks

Task 1: Create a Flutter app and configure Firebase (15 minutes)

Create a new Flutter app using the flutter create command. Configure the app to use Firebase by adding the necessary Firebase dependencies to your pubspec.yaml file and adding the Firebase configuration files to your project.

Task 2: Implement Firebase Authentication (20 minutes)

Implement Firebase Authentication in your app. The app should allow users to sign up and log in using their email address and password.

Task 3: Implement Firebase Realtime Database (40 minutes)

In this challenge, you will create a Flutter app that allows users to manage their favorite recipes using Firebase Realtime Database. The app should allow users to perform the following actions:

- Add a new recipe
- View a list of all recipes
- Edit an existing recipe
- Delete a recipe

Each recipe should have the following properties:

- Title
- Description
- Ingredients (a list of strings)

You should implement Firebase Realtime Database to store the recipes and allow users to

perform the above actions. The data should be retrieved and displayed in a ListView widget in the app.

Assessment Evaluation

You will be evaluated based on the following criteria:

- Completion of each challenge within the allocated time
- Correct implementation of Firebase Authentication, and Realtime Database
- Code quality, including readability and structure