**Student Name: Weight: 15%**

**Student ID:** **Marks:** **/60**

# Assignment: App Basics

## Introduction

Welcome to assignment 2 of the Mobile development course! In this assignment, you will create an Expo application, with basic navigation enabled that simulates a sign-in functionality. This assignment will help you understand how to handle user input, validate data, and navigate between screens using Expo.

**Instructions:**

1. **Setup and Requirements:**
   * Create a new Expo project and implement navigation.
   * Implement a sign-in form with fields for username and password.
   * Validate the username and password according to specified complexity rules:
     + Username must be at least 5 characters long.
     + Password must be at least 8 characters long and include at least one uppercase letter, one lowercase letter, one number, and one special character.
     + Tip: use regex to check the text of the <TextInput> before processing.
2. **Data Storage:**
   * Save the provided JSON file (credentials.json) in the root of your project.
   * The JSON file should contain multiple username-password combinations for validation purposes.
3. **Sign-In Logic:**
   * Upon submission of the sign-in form, verify if the entered username and password match any entries in credentials.json.
   * Display appropriate error messages for invalid inputs (e.g., incorrect format, username not found, incorrect password, username too short).
4. **Navigation:**
   * If the sign-in is successful, navigate to a new screen that displays a welcome message, such as "Welcome to My New App" at the top.
   * At the bottom of this screen, have two tabs. Let the default say “Calgary” and the second tab say “Edmonton”. Each of the tabs should display a picture of the cities and under them, text that says, “go to city page” and links to the city webpage when clicked. Also add other interesting information about the cities on those pages. Below are the links to the city pages.
   * <https://www.calgary.ca/home.html>
   * <https://www.edmonton.ca/>
   * You must use the same component file to render the clickable text of both and the value of the link must be passed to the component using a prop.
   * You must also use another component file to style the interesting information about the cities.
5. **Styling and UX:**
   * Use basic styling to make the sign-in form and welcome screen visually appealing and user-friendly.
6. **GitHub:**
   * Push your code to GitHub, make sure that all team members have at least 2 commits to the code base.
   * Submit your GitHub link in the text field.

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## Marking Criteria

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Needs Improvement** | **Good** | **Excellent** | **Marks** |
| **New Application Created with Navigation** | There is not code or submission  (0 marks) | There is code and submission, but it breaks  (3 marks) | There is code and submission, and it works  (5 marks) | **/5** |
| **Sign-In page works, checks inputs and routes to another page** | There is a sign-in page or the page does not work.  (0 marks) | There is a sign-in page, it works, but there are issues with either the routing or the input checks.  (7 marks) | Sign-in page works, inputs are checked correctly with alerts.  (15 marks) | **/15** |
| **Landing Page and tabs** | Landing page and tabs do not exist  (0 marks) | Landing page exists, but there are issues with the tabs or with the landing page.  (7 marks) | Landing page exists and meets all specifications.  (15 marks) | **/15** |
| **Code: Props, code re-useability, formatting** | The landing pages are not well formatted. Props are not used, code is not reused, formatting is not adequate.  (0 marks) | The landing pages are somewhat formatted, there are issues with props, reuse of code or formatting.  (7 marks) | The landing pages are well formatted. All the three elements are included.   (15 marks) | **/15** |
| **GitHub** | No GitHub Link is provided  (0 marks) | GitHub link exists. Repo does not have 3 commits, not all group members contributed.  (5 marks) | GitHub link was submitted. At least 3 commits exist and all group members contributed.  (10 marks) | **/10** |
| **/60** | | | | |