

UECS3253/UECS3463 WIRELESS APPLICATION DEVELOPMENT

ASSIGNMENT

May 2019 Trimester

Course Outcomes

In this assessment, you are assessed based on the following **course outcomes**:

- **CO2:** Build wireless applications with appropriate user interfaces.
- **CO3:** Develop wireless applications that incorporate persistent data storage and location awareness.
- **CO4:** Develop wireless applications that communicate with server-side programs over the cloud.

Assessment Contribution

This assignment contributes **15%** to the overall assessment for this course with equal contribution for each CO.

Membership

This assignment must be attempted in a **group** of **THREE (3) OR FOUR (4)** students.

Deadline

The deadline for this assignment is **Monday, August 19, 2019**.

Question

Develop a mobile app targetted for the *Android* platform using *React Native* based on **ONE (1)** of the following titles:

1. Tourist Information Guide (choose a city or a specific tourist attraction)
2. Shopping Mall Directory (choose a shopping mall within Malaysia)
3. Departmental Store/Supermarket/Hypermarket Directory (choose a store, e.g. Aeon Bandar Utama, Aeon Cheras Selatan, Tesco Kajang, etc.)
4. Event Countdown & Reminder

Requirements

The resulting app **MUST** fulfil the following requirements:

1. The *user interfaces* must be built with suitable components based on their purpose. You must:
 - a) Use appropriate builtin React Native components and / or components from third party modules.
 - b) Define custom components where necessary.
2. Persistence data storage (local device) must be implemented using any one or more of the following:
 - a) File system.
 - b) AsyncStorage key-value storage system.
 - c) SQLite database.
3. Connecting to cloud to send and / or receive data using any one or more of the following:
 - a) Web-based API.
 - b) WebSocket API.

Registration of Group & Title

Please form your group of either **THREE (3) OR FOUR (4)** students only. Appoint a group leader and the group leader is responsible to register your group and your chosen title at <https://forms.gle/cU5w3Lzr3Y5cSj8cA>.

Ensure that you are signed in to your UTAR Google Account (@**1utar.my**) before accessing the registration form.

Deliverables

You should submit the following items in softcopy archived in ZIP format. The ZIP filename should be the name of the group leader (e.g. **Ng Li Li.zip**).

1. A report with the **Title** and **description** of your mobile app. The description should explain:
 - a) The key features of your mobile app.
 - b) How data persistence is used in your mobile app and what it is used for.
 - c) How your app connects to the cloud and what it is used for.
2. Softcopy of your entire React Native project.
3. Sample screens output.

Submission & Originality Policies

1. This assignment must be submitted completely by the abovementioned deadline.
2. All work must be original and if, taken from any works other than yours must be properly referenced.
3. Any plagiarized content will be penalized, including the award of zero marks.

Marks Allocation

No.	Course Outcome	Assessment Criteria	Marks
1	CO2	Screens & Layout	10
2	CO2	Use of Appropriate Components	15
3	CO2	Reusability (Custom Components)	8
4	CO3	Appropriate Usage of Data Persistence	13
5	CO3	Implementation of Data Persistence	20
6	CO4	Appropriate Usage of Cloud Connectivity	13
7	CO4	Implementation of Cloud Connectivity	20
		TOTAL	99