**COMP3059 Capstone Project I**

**Sprint 4 (20%) - Due: Sunday, Nov. 28, 2021 (11:59 pm)**

**PART I -- MockUp/Prototype**

Use a mock-up tool (Figma) or any other tool that best suits your project to:

- Build a **Mockup with prototyping capabilities.**

Ensure that the design of your application has effective UX and UI.

**It must be interactive to show the functional and navigational capabilities.**

It must also be **detailed and adhere to** Sprint 1, 2 and 3 documentation.

Note: The mockup should be submitted as a .pdf or any format that can be run independently.

**PART II -- Technology Requirements (as a Word document or a pdf)** (max. 4 pages)

1. **Technological Requirements**

- Create a tabular representation of the technology (for e.g., Database, Programming languages, Framework, Hardware, etc.) that is being planned by your team to build the application/s.

- State pros and cons why each technology is best fit for your application.

**Android Studio**

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| Pros | Cons |
| Visual layout editor makes it easy to design | Takes long to build and run |
| Team members are experienced in using it | Emulator is slow |
| Wide range of devices you can run your apps on | Can’t be used on low configuration machines |

**Java**

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| --- | --- |
| Pros | Cons |
| Java is multi threaded which means it has the potential for a program to perform many tasks at the same time | Java consumes more memory and is slower than other languages for that reason |
| Java is secure because it has no explicit pointer and has a security manager. | Java provides no backup facility for data |
| Java is platform independent which means it doesn’t need any software to be installed as long as the JVM is present on the machine. | Since Java consumes more memory space than other languages it could be costly to buy better hardware to run it |

**React Native**

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| Pros | Cons |
| Fast build and run time | The code is very complex compared to other languages |
| Allows you to reuse the codebase between IOS and Android to a certain extent | React native is hard to debug |
| Very lightweight and doesn’t use as much memory space as android studio | Not very efficient design wise. It isn’t a good choice to use react native if you want a complex designs and interactions |

**JavaScript**

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| --- | --- |
| Pros | Cons |
| Very fast to compile | It is difficult for the developer to debug |
| JavaScript is very versatile since it is capable of front end and back end development | JavaScript only supports single inheritance and not multiple inheritance |
| All modern browsers support JavaScript | The browser interprets JavaScript differently in different browsers |

1. **Learning Plan** 
   * + - Create a tabular representation of the technical skills required for the development of this application.

* State for each team member the Responsibility and existing skill level (%).
* State the Learning Plan for each team member (for e.g. start date, end date, resource/s, etc.).

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| Problem Solving | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Programming Languages | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Graphical user interface design(UI) | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IOS platforms | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Teamwork |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| User interface design(UI) | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Written communication | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Dalha |  |  | Jillian |  |  | Nicole |  |  |  | Hans |  |  | Charles |  |  |  |
| Prepare material for your team | | | Maintain a team calendar | | | Schedule and hold meetings | | |  | Facilitate Discussion | | | Communicate with team members | | | |
| Assign Responsibilities | |  | Draft and deliver correspondence | | | supervise team members | | |  | support Team members | | | define and document requrimets | | | |
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|  | Start date | End date | Resource |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dalha | nov,28,2021 | feb,20,2022 | youtube |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jilian | nov,28,2021 | feb,20,2022 | books |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nicole | nov,28,2021 | feb,20,2022 | website |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hans | nov,28,2021 | feb,20,2022 | youtube |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Charles | nov,28,2021 | feb,20,2022 | website |  |  |  |  |  |  |  |  |  |  |  |  |  |



**Evaluation guidelines:**

**Design of Mockup –> 20%**

**Functionality of Mockup –> 20%**

**Technology Requirements, Learning Plan  20%**

**Team Work (based on Peer Evaluation) –> 40%**

For any documents submitted on Blackboard, use the following naming convention “F21\_T<your team number>\_<appropriate name>”. For example, F21\_T43\_MockUp.pdf, F21\_T43\_TechReq.doc

**Only 1 submission per team is required.**