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Mobile App DevelopmentPUSL2023Coursework2021 – 2022

Term: Term 1 & Term 2  
Submission Deadline: 20th April 2022  
Coursework Type: Group assignment  
Element of Assessment: C1  
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Coursework 2021/2022

**Assignment Objective:**

The objective of the assignment component of the Mobile Application Development module is to provide the students the opportunity to apply the theory and practical knowledge gained during the course to design and develop a Mobile App. This will help  
the students to enhance the individual skills of analysis, design, development,  
implementation and self-learn the latest trends in Mobile Application Development in a practical environment. Furthermore, they will be competent on solving different technical issues throughout the project starting from setting up the required developing environments.

The assignment is a compulsory component of the module which accounts for 40% of  
the module. Devoting a substantial amount of time for the project work consistently  
throughout the session is highly recommended.

**Project Selection**

It is the responsibility of the student groups to identify a suitable project concept. The  
project should comprise a substantial amount of individual and group work. The  
following project examples will help the students to select a project concept but the  
group may come up with their own concept.

• Mobile app to promote business through online sales  
• Social media application   
• Mobile application which utilizes the sensors embedded in the smart phone to address real world problem.   
• Mobile game application

To support the academic aims of the assignment there are some rules intended  
to ensure that the project is heterogeneous and that you employ suitable middleware.  
The project selection should be based on and to support the academic goals of the  
module. But you should also consider the realistic requirements and value  
of the selected project concept.

**Guidelines**

* Design and develop a mobile application which includes at least five activities and  
  database component or utilizing appropriate device feature up to similar complexity necessary for task achievement.
* Welcome screen, login, and logout screens (if applicable) are not considered as activities.
* The assignment is intended to complete as a group work, with some individual  
  evaluation as described in section 3 of the assessment criteria.
* The group must consist of at most six students. The details of the groups  
  (student id, name, email, and contact number) must be included to the project proposal and submit the document to the DLE.
* After submitting the proposal, the team must confirm with the supervisor the  
  scope and functionality of the project and receive formal approval prior to  
  starting the implementation work.
* Must use GitHub version controlling as a group and must commit individually.
* The final group report should clearly indicate the contribution of each individual  
  towards the project. All individuals are expected to have a complete  
  understanding on the total project not only the areas that they worked on.
* The group report should not contain more than 5000 words

**Deliverables and submission**Information about the group submission  
• Project Proposal on or before 11.55 pm, 9th March 2022 (Moodle e-submission through Plymouth Digital Learning Environment (DLE))  
Note: Bring a hard copy to 10th March 2022 lecture  
• Completed project 25th April 2022 (Moodle e-submission through Plymouth  
Digital Learning Environment (DLE))  
• Group Report 25th April 2022 (Hard copy via Faculty office & Moodle e-submission through Plymouth Digital Learning Environment (DLE))  
• Group demonstrations 5th May 2022 onwards

**Late submission**Please note that work submitted late without valid extenuating circumstances will be  
penalized. Work submitted within 24 hours after the deadline will receive a mark, but  
it will be capped at the normal pass mark for that module. Work submitted more than  
24 hours after the official deadline will receive an automatic mark of zero.

**Demonstration**The main evaluation criterion of the assignment is a group demonstration of your  
Mobile application providing evidence that it meets the requirements  
specified, along with a viva. The students are expected to prepare a presentation to  
describe the application, the technologies used, problems which were encountered and how those problems were handled. All group members are expected to be  
present at the demonstration and explain the contribution towards the project. It is also essential that your group should be available for questions and your project should be  
available for use so that other students are able to evaluate it during the same session  
as the demos. Although the normal result of this assessment is a common group grade  
it is possible that individual marks may be modified based on the knowledge displayed  
of the project.

**Marking Criteria:**This assignment carries 40% of the total marks available for the whole module. The  
breakdown of marks and basis of assessment are as follows:

1. Project Proposal 10%

1. A realistic problem statement and the overall approach to provide a solution via mobile application is clearly described 4%
2. The scope of the application is enough and sufficiently described 4%
3. The proposed application has a commercial / Industrial value 2%

2. Mobile application development project product: 50%

1. Application work well without crashing during the demonstration 10%
2. Good coding practices and design patterns 5%
3. The application is sufficiently implemented to meet the quality objectives  
   and scope (task achievement) 10%
4. Proper arrangement and organizing activities for utilizing each feature. 10%
5. Quality of UI/UX 5%
6. Usage of existing APIs, components, frameworks etc. 5%
7. Resilient to different configurations changes of the device 5%

3. Presentation and demonstration: 20%

1. Degree to which the demonstration was convincing and quality of  
   discussion 5%
2. The understanding of the whole group about the project 5%
3. Contribution for the project by each member 10% (Individual mark)

4. Group Report: 20%

1. Requirements and the project scope are clearly described 3%
2. The planning and organizing of the activities for the task achievement is described giving proper details 3%
3. The declaration of the APIs, templates, components, technologies  
   used 3%
4. The report described the individual effort of each member clearly and  
   separately 3%
5. The report describes the issues faced during the implementation of the  
   project and the approach adopted to resolve them 4%
6. Proper referencing of the report and are the relationships between the  
   contents of the cited sources and the contents of the report are  
   appropriate 2%
7. The report is structured and presented properly and there is a  
   summary and a set of conclusions, based upon the contents of the  
   report 2%

**Threshold Criteria:**- >40% - 50%:

* Demonstrate satisfactory level understanding of the project at the proposal  
  level in terms of scope, requirements, and overall technical approach
* Sufficient implementation of the project according to the initial agreed scope  
  and the requirements with sufficient activities, using existing APIs. Satisfactory level demonstration of the project.
* Sufficient UI/UX design to match the requirement
* Demonstration of the satisfactory level understanding of all individuals in the  
  team regarding the project and its implementation
* The report should include
  + Sufficient description of the requirements, scope and a satisfactory  
    technical diagrams illustrate the project.
  + A sufficient justification of the APIs and technologies used
  + The description of the issues faced during the implementation
  + With a proper structure, presentation, and appropriate referencing

- >50% - 60%:

* Demonstrate adequate understanding of the project at the proposal level in  
  terms of scope, requirements, and overall technical approach
* Sufficient implementation of the project according to the initial agreed scope  
  and the requirements with sufficient activities, using existing APIs. Satisfactory level demonstration of the project.
* Satisfactory UI/UX design to match the requirement
* Satisfactory level discussion during the presentation. Demonstration of  
  adequate understanding of all individuals in the teams regarding the project
* The repost should include
  + Sufficient description of the requirements, scope and complete  
    technical diagrams illustrate the project.
  + A satisfactory level justification of the APIs and technologies used
  + The description of the issues faced during the implementation and the  
    steps taken to resolve them
  + With a proper structure, presentation, and appropriate referencing

- >60% - 70%:

* Demonstrate adequate understanding of the project at the proposal level in  
  terms of scope, requirements, and overall technical approach and the  
  realization of the commercial / industrial value that the project can provide by solving a real-world inefficiency.
* Adequate implementation of the project according to the initial agreed scope  
  and the requirements with activities, using existing APIs and device features. Successful demonstration of the project.
* Adequate UI/UX design to match the requirement
* Adequate discussion during the presentation. Demonstration of the adequate  
  understanding of all individuals in the teams regarding the project.
* The repost should include
  + Appropriate description of the requirements, scope and complete  
    technical diagrams illustrate the project.
  + A clear justification of the approach towards the task achievement, APIs and technologies used
  + The description of the issues faced during the implementation and the steps taken to resolve them
  + Elaboration of the usefulness in the real-world applications
  + With a proper structure, presentation, and appropriate referencing

>70%:

* Demonstrate comprehensive understanding of the project at the proposal  
  level in terms of scope, requirements, and overall technical approach and  
  the realization of the commercial / industrial value that the project can provide by solving a real-world inefficiency.
* Complete implementation of the project according to the initial agreed scope  
  and the requirements with activities, properly utilizing existing APIs and device features. Successful demonstration of the project without any failures.
* Professional UI/UX design to match the requirement
* Convincing and quality discussion during the presentation. Demonstration of  
  the clear understanding of all individuals in the teams regarding the complete  
  project and its implementation
* The repost should include
  + Comprehensive description of the requirements, scope and complete  
    technical diagrams to illustrate the project.
  + A clear justification of the approach towards the task achievement, APIs and technologies used
  + Elaboration of the usefulness in the real-world applications
  + The description of the issues faced during the implementation of the project and the actions taken to overcome
  + Identify realistic and practical future enhancements to the project
  + With a proper structure, presentation, and appropriate referencing

**Feedback**Individual feedback will be provided during the demonstration/ viva session.

**Academic offences:**(the following is a fragment of Section AST10.2 from  
https://www.plymouth.ac.uk/uploads/production/document/path/8/8388/Section\_D\_A  
ssessment.pdf)  
Academic offences occur when activity is undertaken which could confer an unfair  
advantage to any candidate(s) in assessment. The University recognizes the following  
(including any attempt to carry out the actions described) as academic offences,  
regardless of intent:  
a) Copying or paraphrasing of other people’s work or ideas into a submitted  
assessment without full acknowledgement (plagiarism).  
b) Unauthorized collaboration of students (or others) in a piece of work (collusion).  
c) Making false declarations in an attempt to obtain either modified assessment  
provisions or special consideration (e.g. of extenuating circumstances).  
d) Persuading another member of the University or partner institution (student,  
staff, or other) to participate in any way in actions which would be in breach of these  
regulations.  
e) Misrepresenting research outcomes and results.  
f) Being party to any arrangement which would constitute a breach of these  
regulations.  
g) The inclusion in a piece of assessed work (other than an examination or test)  
of material which is identical or substantially similar to material which has already been  
submitted for any other assessment within the University.  
h) Any other activity which could confer an unfair advantage to any candidate(s).  
For full details on the academic offences framework and procedures, consult Section  
AST10 from  
https://www.plymouth.ac.uk/uploads/production/document/path/8/8388/Section\_D\_A  
ssessment.pdf