**Department of Software Engineering**

**Mehran University of Engineering and Technology, Jamshoro**

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|  | **Course: Mobile Application Development (SW-327)** | |
| **Instructor** | Ms. Mariam Memon **Assignment Type** | Complex Engineering Problem |
| **Semester** | 6th **Year** | 3rd |
| **Submission Deadline** | 06-11-2022 **Assessment Score** | 10 |

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| **Complex Engineering Problem – Characteristics** |  |
| 1 Depth of knowledge Required |  |
| 2 Range of Conflicting Requirements |  |
| 3 Depth of Analysis Required |  |
| 4 Infrequently Encountered Issues Involved |  |
| 5 Beyond codes/standards of practice |  |
| 6 Diverse groups of stakeholders with widely varying needs involved |  |
| 7 Interdependence (high level problems including many component parts/subproblems) |  |
| 8 Have significant consequences in a range of contexts |  |
| 9 Judgement (Require judgement in decision making) |  |

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| **Problem Description** |
| Develop a mobile application that solves a real world problem. Your application must conform to the following constraints:   1. It must uniformly work on all platforms and screen sizes of various phones and tablets. 2. The code should follow coding standards for mobile development. 3. Easily maintainable and understandable Code. 4. Depending on your application, it must have data stored either locally or on the cloud. 5. Optimal state management technique with respect to the app must be incorporated.     **Expected Deliverables:**   1. Project Proposal **(Deadline: 12 October 2022)** 2. Working Application (GitHub Links) **(Deadline: 06 November 2022)** 3. A report with following sections: **(Deadline: 06 November 2022)**    * Real World Problem Identification    * Proposed Solution    * Responsive User Interfaces (Screenshots of your app on different screens & platforms)    * Data Storage (With justification for using a particular database)    * [Optional Section] APIs/Packages/Plug-ins (if used with justifications for using them).    * Issues and Bugs Encountered and Resolved during Development |

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| Rubrics | **PLO** |  | |  | Assessment | |  | Marks |
|  |  | Unacceptable  [0] | | Poor [0.5] | Acceptable [1] | Adequate  [1.5] | Proficient [2] |
| R1 Identification of constraints/require ments/demands | 3 |  | |  |  |  |  | 2 |
| R2 Maintainability of Code | 3 |  | |  |  |  |  | 2 |
| R3 Understanding of issues | 3 |  | |  |  |  |  | 2 |
| R4 Efficiency of the solution | 3 |  | |  |  |  |  | 2 |
| R5 Adaptability | 3 |  | |  |  |  |  | 2 |
| **Total Marks** | 10 |  |  |  |  | |  |  |