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|  | **Subject Name: Software Engineering**  **BSCS- 5 A**  **Department of Computer Science**  **Bahria University, Lahore Campus** |

**Assignment #2**

Date: Week 6, 21, March 2023

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Roll No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Evaluation of CLO** | **Question Number** | **Marks** | **Obtained Marks** |
| **CLO2: CLO statement**  *Students will be able to design and develop software prototypes using appropriate methods and tools.* | 1 | 5 |  |
| **Total Marks** | | **5** |  |

**Assignment Task**: Design and Develop a Prototype for a Mobile Bank App

You are working as a software engineer for a major bank and your team has been tasked with designing and developing a prototype for a mobile bank app. The app should have the following features:

**Account Overview**: The app should display the user's account balance, recent transactions, and other relevant account information.

**Money Transfer**: The app should allow users to transfer money between their accounts, as well as to other users or external bank accounts.

**Bill Payment**: The app should allow users to pay bills directly from their bank account.

**Notifications**: The app should allow users to receive push notifications for important events, such as when a payment is due or when their account balance falls below a certain threshold.

Your task is to design and develop a prototype for the mobile bank app using appropriate methods and tools. You should follow the software engineering process, including the following steps:

**Requirements Gathering**: Identify the functional and non-functional requirements for the mobile bank app. These should include the features listed above as well as any additional requirements.

**Prototyping**: Create a low-fidelity prototype of the mobile bank app using paper prototyping, wire-framing tools or prototyping tools such as Sketch or Adobe XD. The prototype should demonstrate the functionality of the app and should be refined until all requirements are met.

**Design**: Create a high-fidelity prototype of the mobile bank app using design tools such as Sketch or Adobe XD. The prototype should have a clear and intuitive user interface that makes it easy for users to navigate and understand.

**Development**: Develop a functional prototype of the mobile bank app using appropriate programming languages, tools, and frameworks. The prototype should be tested thoroughly to ensure that it meets all requirements.

**Evaluation**: Evaluate the prototype using appropriate methods, such as usability testing, to ensure that it is effective and efficient in meeting user needs.

You will be evaluated on the following criteria:

**Requirements Gathering**: Are all functional and non-functional requirements identified and included in the prototype?

**Prototyping**: Is the low-fidelity prototype well-designed and refined to meet all requirements?

**Design**: Is the high-fidelity prototype visually appealing, intuitive, and easy to use?

**Development**: Does the functional prototype meet all requirements and is it free of errors and bugs?

**Evaluation**: Has the prototype been evaluated effectively and efficiently to ensure it meets user needs?

Good luck!