

Faculty of Computing

Assignment 01 – Kotlin

SE4041 – MADD

Year 4, Semester 1

Objective

Students are required to develop a mobile application following the Software Development Life Cycle (SDLC) process. The stages of Deployment and Maintenance are excluded from this assignment. The assignment aims to assess students' ability to plan, design, develop, and test a mobile application effectively.

SDLC Stages to be Followed:

1. Planning & Requirement Analysis
2. Defining Requirements
3. Design
4. Development
5. Testing

Topics Allocation

Each student will be assigned a specific topic based on the last digit of their registration number:

- Ends with 0: Mobile app for Travel and tourism
- Ends with 2: Mobile app for Health and fitness
- Ends with 4: Mobile app for E-learning
- Ends with 6: Mobile app for Agricultural sector
- Ends with 8: Mobile app for E-commerce

Detailed Requirements

Propose Your Idea to Panel and Get Approval

Submit Report to Course Web – 03rd August

Evaluation – 10th August

SDLC Stages

1. Planning & Requirement Analysis

- Identify the problem your app is addressing.
- Determine the target audience.
- Conduct a feasibility study.
- Define the scope of the app.

2. Defining Requirements

- Create a list of functional and non-functional requirements.
- Define the features and functionalities of the app.

Design UI prototype using Figma (10 Marks)

Submit Report to Course Web – 24th August

Evaluation – 31st August

3. Design

- Ideation (3 Marks)
- Applying "60-30-10 rule" when deciding the colors (2 Marks)
- Main Interface Design (3 Marks)
- Design Aesthetics and Usability (2 Marks)

Development using Kotlin (15 Marks)

Submit your complete application to GitHub Classroom – 21st September

Evaluation – 28th September

4. Development

- Selecting suitable layouts (2 Marks)
- Using proper views for the user interface (2 Marks)
- Interactivity (1 Mark)
- Functionality (4 Marks)
- DB Connection (3 Marks)
- Git usage (3 Marks) – *Students must maintain their GitHub Classroom repository from the beginning of the project, ensuring regular commits and updates throughout the development process.*

Documentation (5 Marks)

Submit Report to Course Web – 21th September

Evaluation – 28th September

- Overview (1 Mark): Provide an overview of the app.
- Features (1 Mark): List and describe the features.
- Challenges (1 Mark): Discuss the challenges faced during development.
- Screenshots (1 Mark): Include screenshots of the app.
- Testing (1 Mark): Document the testing procedures and results.

5. Testing

- Perform unit testing and integration testing.
- Document the testing process and results.

GitHub Classroom Link

<https://classroom.github.com/a/yr3uorNg>