

### Mini project Guidelines

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#### Group Formation:

Maximum number of group members per group – 04

Advised to form the group within the same lecture group.

#### Instructions to the Project:

- Students should design and develop a real world mobile application.
- Students can choose their own topic.
- The project must be Android Application developed using **Java** language.
- Break down the project into 4 individual components.
- All 4 members must have equal contribution to the project in both design and development.
- Application must contain 4 individual components with basic **CRUD operations and a DB connection**.
- Do not limit only for the CRUD operations. **Additional features are expected for each component**.
- Database can be local (SQLite) or server based (Firebase) according to the requirements and the functionalities of the application.
- The application must contain some values coming from a calculation or an algorithm. (Eg: If you are developing an Income-Expenses kind of application, you can display monthly income and expenses using a dashboard/report/etc. For that you need to do a calculation)
- Note that you **cannot** consider the login and user profile handling as a single component. If it is needed for your app, divide the functionalities among all members **or** assign to the one who's having less work in his / her component.
- A report will be required from each group for both evaluations including the **marking sheet as the cover page**. (Marking criteria will be published separately before each evaluation)
- There will be a 20% deduction from the total assignment mark from particular evaluation for absentees even if he / she gives viva during the following week at the allocated time. If the student could not complete viva during that week also, he /she will be marked as an absentee, no more evaluations will be conducted.
- Any excuse for absence or postponing of the evaluations will not be accepted.

## Assessment Criteria (30%):

### Evaluation Phase 1

- Evaluation of the **project design**.
- Weightage – 10%
- Evaluation period – During 7<sup>th</sup> Academic week
- **Report** – Prepare a group report with maximum of 12 pages. This should contain the following.
  - A snapshot of the entire project prototype with showing the connectivity of the user interfaces designed using any wireframing tool with a description.
  - Details on individual contribution for the application design with snapshots (from Android Studio project) and briefly explaining Interface design concepts and principles you applied. Indicate the Student Number on the top of each contribution section.
  - Mention about any confirmation messages/ alerts/ notifications/ etc when necessary.
- **Project**
  - Students should be able to show the integrated Android Studio project with project design.
  - Using resource files (Eg: String.xml, Styles.xml) is a must to store label names, string messages, etc.

### Evaluation Phase 2

- Evaluation of the **final integrated application**.
- Weightage – 20%
- Evaluation period – During 12<sup>th</sup> Academic week
- Viva duration – 30 minutes per group ( All absentees MUST complete viva during one week from the allocated time. There will be given a 20% deduction from the total assignment mark for those absentees. If the student could not complete viva during that week also, he /she will be marked as an absentee, no more evaluations will be conducted for them)
- **Report** – Prepare a group report with maximum 25 pages. Indicate the Student Number on the top of each contribution section. This should contain the following:
  - Include GitHub repository link and video link (read below for more details) at the given space on cover page.
  - A brief explanation about the project and a snapshot of GitHub repository contribution graph and commits list.
  - A snapshot of Individual contribution graph in GitHub repository.
  - Include snapshots of individual highlighted implementations, calculations and CRUD operations used with the snapshots of running application.
  - Include the testing methods and test cases applied to produce a better product.
  - What are the things you had to change initiated in project phase 1 when doing implementations? And, why did you have to do so?

- Project
  - Students should be able to show the integrated Android Studio project with the final product.
  - Required Unit tests must be included in the project.
- Video clip (One video per group)
  - Students should submit a video clip to market their Mobile app.
  - This should be maximum 5 minutes.
  - Upload this in a social media and include that link at the given space on cover page of the report.
  - Remember to add a note (or similar thing) that tells the video is created just for an assignment purpose.