

BSc (Hons) in Information Technology Year 4

Assessment 01 - Mobile Application Development

SE4010 – Current Trends in Software Engineering

Semester 1, 2023

Description

- This is a group project, and in each group, there should be four/less than four members
- This Assignment is worth **25%** of the Total Grade.
- This Assessment will be Due on 25th of March 2023 at 5:00 PM.

Specification

There are four main components to this Assignment. You need to submit the following content.

- Source code
- Individual Report about your individual contribution
- A 5–8-minute video of your solution.
- VIVA Session

1. Source Code (GitHub/Gradescope)

The purpose of this assignment is to develop an Android Application using Flutter or React Native. The app should facilitate the basic requirements given in the project description and some more can add according to your wish. At Minimum **each member** should include features as follows:

- Extensive User Interfaces
- It must contain an "input" screen where the user has to enter data
- Must include a list (with an underlying SELECT)
- Must do INSERT, UPDATE, SELECT, DELETE on the database
- Must have at least 1 list screen, 1 input screen, 1 extra screen (e.g. splash, or help).

Use at least *two* features from the selected framework. The purpose of this is to demonstrate your proficiency at using the API to discover new features, which you can then implement because you should have built up enough general familiarity with the framework to be able to do this. Examples of features might be using menus on your screen, tabs, multi-row lists, linking to camera, linking to network, animations, location services, preferences, dialogs, etc.

Each group should work on a GitHub repository where each member will contribute their developments to the main branch. This is Mandatory and will be used to verify the individual contributions mention in your individual reports.

You are required to submit your code through Gradescope. You directly import the source code to Gradescope submission from Github.

2. Detailed report (Individual)

You should write a complete report describing your part in the development with Following Criteria. (Each Member of the group should have a separate report)

- Include your individually implemented code. Copy and paste your codes in the Annex section of the report. **Do not paste screen shots.**
- Screen shots of all UI's.
- Screenshot of your contributions as shown in the Github repository
- All the references

3. Project Video

• You can use a screen capture software such as CamStudio/snagit to record your presentation. e.g. https://camstudio.org or you can use any software that you like for this like OBS studio.

Note: Reduce the screen resolution as much as possible to create a smaller video file.

You can record your individual components and one member should combine the videos together. Rename it with the group id. (If you did not receive a group id, rename it with the leader's student number.) Then only the group leader must submit the combined full video.

- This should be a **demonstration video** which demonstrates the main features in your application.
- Don't show the source code in Video. (That will be assessed with your submitted code)

4. Viva(Compulsory)

Viva session provide further assessment of your app, testing your knowledge of your own app.

If you do not present in Viva session, your assignment will not be marked.

Marks

This group project assignment is worth **25%** of your overall mark in this module. Marks will be distributed as follows:

Source code	10%
Project Report	30%
Project Video(Video is compulsory)	10%
Viva	50%

How will your source code be marked?

Marks for the source code for the app will be as follows.

- Accuracy/ Completeness (50%) for supplying the deliverables listed (code), and for handing in an app that meets the various points in the specification. Your app should work without runtime errors so test it.
- Quality of the user interface (20%) Are the screens easy to use(user friendly)? Are they laid out neatly? Do they look viable?
- Overall quality and complexity of the app (30%) –Does your app function well and robustly? What extra features beyond the standard functionality requested are included? How viable and complex is it?

What sort of app should I develop?

Given the specification, you're going to be developing an app that captures information about the selected topic and let you view and maintain that information. Don't forget that you're only including the functionality requested – so your app won't have many screens – probably **five** or **six** in total.

Due Date

Please submit all the files of project before 25th March 2023 05:00 pm.

Submission Guideline

There are 3 submissions project video, source code and four individual reports. You should submit all 3 deliverables (Video, source code, and the reports) in order to gain a good mark for the project. You will be getting zero mark if the Source Code is not submitted or you have not faced the VIVA

Individual reports

Each Individual Report should be uploaded to the Quiz in CourseWeb by the Group Leader. Each Report should be uploaded as a pdf and should have the following Naming Convention.

Group_xxx_ITxxxxxxxx.pdf

If the submission document exceeds 10MB Please upload the documents to onedrive and paste the link.

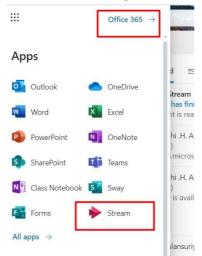
Source Code Submission via Gradescope

Group Leader should submit the source code through Gradescope for code similarity checking purposes.

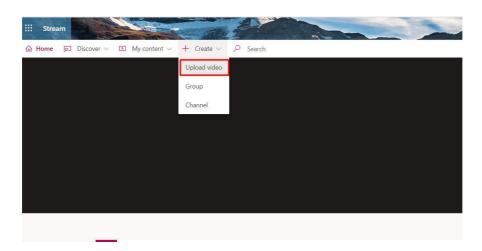
Video submission

Upload your video in Microsoft stream and paste the url in courseweb quiz.

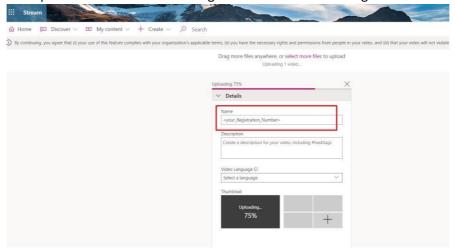
1. Use your Microsoft Account to log into Stream.



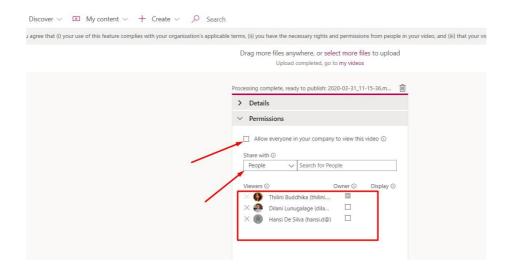
2. Then select upload Video from Create menu.



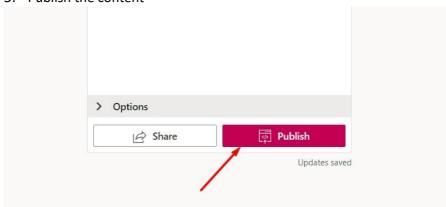
3. Upload the Video. Leaders' registration number can be given as the name.



4. Allow Permissions by selecting share with people (Jeewaka.p@sliit.lk, ishara.w@sliit.lk, sanduni.p@sliit.lk)



5. Publish the content



6. Finally click on share button and copy the link given and paste it in the courseweb quiz.



Regulations

- All students are expected to submit assignments within the given deadline.
- There will be penalties for late submissions.
- Up to one-week delay 25% of marks will be deducted Beyond these zero marks will be awarded.
- Any code snippets that are not directly written by you (e.g. used from a tutorial) must be referenced as such within your code. You must directly comment the code to explain its source. Failure to reference code that is not yours will be treated as plagiarism. See next regulation.
- The app must be your own work. Assignments that are copied or written by someone
 else will receive zero marks, and the plagiarism escalated as per DIT assessment
 regulations.

Marking Guide

Group ID					
ID					