

# Software Development for Mobile Devices

## Formative Assignment - 04 (Graded as Pass / Fail, Individual Work)

**Due: Week 7,** (Submit at the start of lab)



### Objectives

This assignment task has the following objectives,

1. Understand the issues related to form design in the mobile context.
2. Create an application that demonstrates how data can be passed back from an activity.

### Tasks

#### Task 1

Create an app. that will allow you to add meta data for two images. The app. must show both images on the first activity with their name and date it was obtained. When the user touches the image it should present to the user a form that allows them to modify the meta-data

Meta data associated with the image:

- (a) Name of the image (cannot be empty)
- (b) Location the image was obtained from (URL)
- (c) Keywords
- (d) Date image was obtained (use the built-in date control for this)
- (e) Share image? (toggle button)
- (f) Who obtained this image? (has to be email address, cannot be empty)
- (g) Rating (must be a number between 0 and 5)

You must,

- Make use of styles for the labels.
- Demonstrate your ability to work with the parcelable protocol.
- Provide code snippets with a short explanation of how the packable protocol has been used and why this is needed.

Note: This task is a combination of Task 3 & Task 4 in Lab 4.

**Task 2**

Undertake a simple usability test to identify the most readable font size for the labels in your form, as well as to display information once data is captured from the form. The usability test must involve at least 3 people (aim to select people that are not enrolled in this unit as it will yield the best result -- family/friends would be good choice).

***Usability test method***

1. Inform the test participant about the objective -- “identify the best font size for the labels on the form as well as to display information”.
2. Ideally, each user should be tested privately (that is, 3 people at the same time will pollute the test with first answer bias).
3. Show the fonts at 3 different sizes to the users.
4. Ask the user to answer the following questions:
  - a. Can you read the text (labels and information)?
  - b. Do you prefer this font size for the labels?
  - c. Do you prefer this font size for the information display (on primary screen)?

***Presentation of Findings***

Once the test is completed, you must present your findings in a document (under 2 pages). This document must contain the following sections:

- (a) Objective of the test
- (b) Method used for the test (copy steps provided about and adjust for changes if you make any). Indicate the font sizes that you will show to the test participants.
- (c) Test participants (Smart phone experience [None, Low, Med, High])
- (d) Results (present as a table)
- (e) Recommendation
- (f) Reflections on the usability test (briefly provide any reflections on the usability test. You can reflect on the method used, indicate any surprising findings, emphasis any new/unexpected learning etc.)

**Note:** You can also collect additional information about test participants that may be of relevance. For instance, do they need reading glasses? More information does not provide you with additional depth, but you will now have to analysed additional dimensions as well to arrive as your conclusions and recommendations.

## Core/Extension Tasks

All tasks in this assignment are “core”. You must complete all core tasks, submit for feedback, and achieve a pass for all tasks in order to be eligible for a pass grade in this unit.

## Submission

You are required to submit a printed report:

- The header (or) footer of the document must contain your name, student id, and unit code.
- The document must have a title (e.g. Submission for Assignment 04)
- Evidence that shows you completed each task must be presented in a separate section.
- The document does NOT need a table of contents (or) a cover page.

The report is assessed and returned to you in the lab with feedback. You are expected to incorporate the feedback (esp. if changes are required) and submit the changed reports as part of the final portfolio.

**Note:** This is a formative assignment. That is, an assignment designed to provide feedback. If you fail this assignment, you have 1 week to make corrections and re-submit to pass.

## Demonstration

You may be asked to demonstrate your assignment in the lab. You should be able to do this and explain your code when asked in the lab session.

## FAQ

### What happens if a student is unable to submit the assignment?

If you are unable to submit due to medical reasons, then a doctors certificate will have to be shown. In exceptional circumstances, an email submission is permitted (with prior agreement with convenor). In normal conditions, ***all students are expected to make a submission by the due date, else the assignment is graded as a fail.***

### What happens if assignment submission is graded as a ‘fail’?

You will have to repeat the task and submit in the following weeks lab session. Students can repeat the task and submit for feedback twice. If your submission is graded as ‘fail’ twice, then you may fail this unit.

## Cross Reference for Assignment 4

The following checklist will help you check that you have covered key points required in order to pass this formative assessment.

### Task 1

- The app contains two activities.
- The parcelable protocol has been used and explained (why needed and how it works)
- Styles have been used & appropriate code snippets have been provided
- Tutors can verify that the demonstration work (either on a phone or emulator)

### Task 2

- (a) Objective of the test is explained (identify the best label size)
- (b) Method used for the test
  - How were the font sizes determined & why were these selected?
  - What font sizes were shown to the user
  - How was the code modified to show the different font sizes? (three apps, or a drop-down box to select code size?)
- (c) Test participants are described at a high level
- (d) Results are presented in a table
- (e) Recommendation is provided for a font size
- (f) Reflections on the usability test talk about the
  - method used,
  - any surprising/expected or expected findings