Task A10.2C: final curtain

Improving performance of apps

Due: by Monday of week 12, for review ahead of week 12's lab

Aim

The aim of this task is for you to demonstrate your skills in improving the performance of an app.

Tasks

1. Performance Optimisation

Modify the movie review application provided with this handout to improve its performance and usability. Specifically:

- Optimise the code so that the list does not lag/jitter when the user scrolls up.
- Add a message to inform the user while the movie data is loaded into memory. Currently it shows a blank screen. The message that you show must make use of the AsyncTask framework and Progress Dialog to show the user progress of the load task.

Short Report on Performance Optimisation

Once the optimisation and usability related modifications are complete, explain the design principles that underpin the optimisations as well as the changes made for usability improvement.

Your short report must contain the following sections:

1. Introduction (What does this report contain? What are the key design principles that you will discuss in this report)

2. Performance Optimisation (What was the problem as observed? What is the root cause of the problem? What was the design approach used to correct the problem? Code snippets can be used to illustrate the problem/solution)

3. Usability Improvement (What was the problem as observed? What was the cause of the problem? How was the problem corrected? Code snippets can be used to illustrate the problem/solution).

4. References

5. Appendix (Commented code snippets as needed to support the report)

Note: This report must be less than 1500 words (including code snippets and images). Each code snippet/image counts for 250 words, and they must be captioned with a border.

Core/Extension Tasks

All tasks in this assignment are "extension". You must complete all extension tasks, submit for feedback, and achieve a pass for all tasks in order to be eligible for a credit or higher grade in this unit.

Submission

You are required to submit a PDF report using Doubtfire:

- login to Doubtfire at http://doubtfire.ict.swin.edu.au
- 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 <number>)
- Evidence that shows you completed each task must be presented in a separate section.
- The document does NOT need a table of contents nor a cover page.

The reports are assessed and feedback given via Doubtfire and, if required, in your lab. 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 one week to make corrections and resubmit 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.