Task A9.1P: custom suns

Working with persistent data again

Due: by Monday in week 11, for review ahead of week 11's lab

Aim

The aim of this task is for you to update some of your previous apps to make use of persistent data.

Tasks

1. Add a custom geolocation

Extend the Sun time calculator to allow the user to add a custom location. That is, they should be able to provide a Name, Latitude/Longitude and a Timezone. The time zone should be obtained as an offset from GMT. The location provided must be persisted to a file, and read back when the application is reloaded again.

In your submission include a screen shot, and relevant code snippets.

Checklist

- Sun time calculator is extended to capture Name, Lat/Long and Timezone, demonstrated via screen shot
- Code snippet shows file load/write.

Tasks for COS80019 students only

The following tasks are core tasks that only Masters students should attempt. These tasks are optional for undergraduate students. The general concepts related to these questions are covered in the lectures, but Masters students are also expected to read, briefly research a bit more broadly to answer these questions.

2. Administrative access to an Android device

It is possible to gain administrative access (root access) for many Android devices. In this context, answer the following questions:

- What does this mean?
- What are the benefits, and what are the security implications of gaining root access to a device?
- By default, device manufacturers and telephone companies lock devices and do not provide administrative access to a device — why is this the case?
- As a closing remark, are rooted devices more secure?

Checklist

- ○ Administrative access is explained.
- ○ Benefits and side effects (implications) elaborated.
- ○ Presents the case for why devices are locked down (by default)
- ○ Discussion is presented around security of rooted devices.

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 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.