Object-oriented Software Design and Development CCP114N

Week 11

Saving/Retrieving Data to/from file
- Java Object Serialization

Case Study
- Version 3 of Petrol Station app

Revision Guidance

Saving data to disk using Java 'object serialization'

- Java object serialization can write and read state of an object to and from disk files
  - ■ We'll only look at this from a very practical perspective.
    - ❏ Two streams in java.io-- ObjectInputStream and ObjectOutputStream-- are byte streams and work like the other input and output streams
    - ❏ Writing to an ObjectOutputStream and Read from an ObjectInputStream
      - ◆ See examples.
  - ■ Find out more details from the Sun Java tutorial and the recommended textbook

Using Object serialization

- To use object serialization you need
  - ■ To provide Object Serialization for Your Classes by implementing the Serializable Interface

    public class MySerializableClass implements Serializable { ... }

    - ❏ fortunately you **don't** have to write any method.

  - ■ The key to writing an object is to represent its state in a serialized form sufficient to reconstruct the object as it is read.

Revision guidance

- Coursework viva
  - Compulsory
  - Questions will be all about your submitted work
    - My assumption: You should know your work best.
    - Won't be long: max 10-15 min
- Final exam
  - It is a written exam
  - Not open book
  - Read questions carefully, don't complicate the questions
    - They are straightforward and not tricky
    - Scope: only what has been covered
  - Your answer need not be long and general
    - Please note: use your answer to <u>demonstrate your understanding</u> of what is questioned.
    - Answers should be <u>concise</u>, <u>specific</u> and directly <u>relevant</u> to the question