**Assignment 2 guidance.**

**Program.**

Complete the Car Rental System program as shown: [the advanced version in the video](https://www.youtube.com/playlist?list=PLv043-RBwH0KAmTLTav5G7mue6Hb5hFq7) for a distinction grade or the [simplified version on the slides](https://docs.google.com/presentation/d/1iJ6Ojt1Lsx4ErKzfo1J4RruPf8N_SAEtBZOCg-RrJaI/edit?usp=sharing) for a merit grade.

Submit your program as a compressed netbeans project file or in txt files to the Google classroom.

**Report.** *(2000 words)*

Present your report with a title, introduction and concluding paragraph.

The report must be uploaded to Turinitn.

***P4 Discuss a range of design patterns with relevant examples of creational, structural and behavioural pattern types***.

Explain a range of at least 4 design patterns. Provide a UML class diagram for each pattern and refer to the diagram in your explanation. (you may get the diagrams from the Internet, but be sure to reference them.)

You may explain: Model-View-Controller, Observer, Factory, Singleton, stating which category of pattern the belong to: creational, behavioural or structural.

***M4 Reconcile the most appropriate design pattern from a range with a series of given scenarios.***

Using the scenarios given on the assignment brief select the most appropriate design pattern for each.

***D4 Critically evaluate a range of design patterns against the range of given scenarios with justification of your choices.***

Explain why your selection of design patterns for each scenario is the most suitable compared with the other design patterns that you discussed for P4.

***D3 Evaluate the use of design patterns for the given purpose specified in M3.***

The car rental program (the advanced version) implements 3 design patterns. Give a detailed account of how and why these patterns have beens used, explaining whether or not they have been used appropriately and effectively.