



CS4227 Software Design and Architecture

Assignment 1: Sem2 AY 22/23 – The Interceptor Architectural Pattern

8/Feb/23 (Week 3) – v1.

1. Objectives

- To understand the principles of the Interceptor architectural pattern through learn by doing.

2. Submission

Submit a single pdf consisting of:

- Title page with name, student ID number, module details, etc.
- A description of the decisions made for steps 1-7 of the process (2 marks).
- A sequence diagram that accurately reflects the decisions in the previous point, sketched with pen and paper (1 Mark)
- The code (5 marks):
 - Illustrative application which must be one of:
 - CDplayer with play and stop buttons
 - Movie Rental system based on Chapter 1 from Fowler's Refactoring text
 - Weather Station based on Freeman and Freeman in Head First Design Patterns
 - Interceptor
 - Concrete Interceptor
 - Dispatcher
 - Context Object
 - Link to git repo (P/F)
- One automated test case (1 mark)
- Evidence that the code compiles and runs (P/F).

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6. Brief evaluation of this meta programming mechanism. (1 mark)
 7. References (P/F)

3. Notes and Guidelines

- This assignment **constitutes 10%** of the total marks awarded for this module.
- This is an individual assignment.
- **Submission deadline is 23:59 Tuesday 21st February 2023 (Week 5).**
- Submission is via the Sulis Assignment tool.
- You MAY be required to provide the lecturer with a walk through of your project submission.
The project will be awarded an F grade if a walkthrough is not provided when requested to do so.
- Programming language is at your discretion.

Grading Rubric to follow.