



CSE470: Assignment 2

20 Marks

Question 1

- **Part 1:** Create a software requirement context where you will need to use one of the three design patterns (single or hybrid). [3]
- **Part 2:** Then, implement that design pattern in Python or Java. [7]

Question 2

- **Part 1:** Design a CFG problem following the requirements mentioned below: [3]
 - One nested loop
 - Three branches
 - Minimum 20 lines of code
- **Part 2:** Now answer the following questions based on your code:
 - Draw the CFG Graph of your code and label the nodes accordingly [3]
 - Calculate and verify the Cyclomatic Complexity [1]
 - Identify the Independent Paths and required test cases to generate those paths [3]

Submission Guidelines:

- You need to submit the **Handwritten Assignment** in your class
- Your assignment **must have a cover page with your Name, Student ID, Course and Section** on it
- **Deadline: 2nd January (In Class)**
- **Late Submission: 4th January (In Class) - 20% Penalty**
- **No submission will be accepted after 4th January**