

# Software Developer Course Assessment - Quantitative Assessment Practice 2

Course: Advanced Programming (Java)

Date: 27th September 2024

Submission Date: 8th October 2024

## Introduction

This assessment is designed to:

- Understand the class's progress on review material
- Improve the approach to review
- Ensure current strategies are effective

## Important Notes:

- Completion is mandatory
- Be honest about time taken and resources used
- Do your own work
- Partial solutions are acceptable if you can't complete everything

## Marking System

Grades are on a scale of 1-5:

1. Incomplete
2. Partially Complete
3. Mostly Complete
4. Complete (Pass)
5. Complete with Distinction (Pass Outstanding)

## Instructions

For each problem, answer the following:

1. Time spent on each part
2. Online resources used
3. If you asked friends for help (mention names)
4. If you asked instructors for help (how many times)
5. Rate the difficulty of each question and your confidence in solving similar problems in the future

**Problem 1: The MyLine and MyPoint Classes**

Create classes for MyLine and MyPoint as per the provided UML diagram.

Deliverables:

1. MyPoint.java
2. MyLine.java
3. TestMyLine.java
4. Screenshots of running code output

**Problem 2: The MyRectangle and MyPoint Classes**

Design a MyRectangle class composed of two MyPoint instances.

Deliverables:

1. MyRectangle.java
2. TestMyRectangle.java
3. Screenshots of running code output

**Problem 3: Credit Card System**

Implement a system of classes including Money, Person, Address, and CreditCard.

Tasks:

1. Implement Money class with copy constructor
2. Create CreditCard class as per UML diagram
3. Implement accessor methods and charge/payment functionality
4. Test using provided CreditCardDemo.java

Deliverables:

1. CreditCard.java
2. Money.java
3. Address.java
4. Person.java
5. CreditCardDemo.java
6. Screenshot of running code output

Submission

Create a public GitHub repository with all Java files, screenshots, and feedback answers. Submit the repository link.