Technology Assessment

Exercise 1

• Low Level Design

• Software Development Practices

• Hands-on Programming

The Store Discounts

On a retail website, the following discounts apply:

1. If the user has gold card of the store, he gets a 30% discount
2. If the user has silver card of the store, he gets a 20% discount

2. If the user is an affiliate of the store, he gets a 10% discount

3. If the user has been a customer for over 2 years, he gets a 5% discount.

4. For every $200 on the bill, there would be a $ 5 discount (e.g. for $ 950, you get $ 20

as a discount).

5. The percentage based discounts do not apply on phones.

6. A user can get only one of the percentage based discounts on a bill.

Write a program in java such that given a

bill, it finds the net payable amount.

User interface is not required.

What we care about:

**Required Activities**

• Object oriented programming approach, provide a high level UML class diagram of

all the key classes in your solution. This can either be on paper or using a CASE tool

• Code to be generic and simple

• Leverage today's best coding practices

• Clear README.md that explains how the code and the test can be run and how the

coverage reports can be generated

**Bonus Activities**

• Create scripts, e.g. Maven, etc. to:

o build the project from the command-line

o run static code analysis such as linting

o run unit tests and code coverage

• SonarQube report for the code showing its quality summary

Create a GitHub repository, ensure the name is generic and doesn’t have any company

names. Commit your code to the GitHub repository and share the link with us.

Follow up Discussion

After completing the exercise please be ready for 15 minutes’ discussion on your key

decisions, assumptions and rationale for your implementation.