OOC-2 LAB 07 HANDOUT AND TASKS

Prepared by:

Md. Jubair Ibna Mostafa

Assistant Professor, IUT CSE

Department of Computer Science and Engineering

Islamic University of Technology

Contents

1   SRP SINGLE-RESPONSIBILITY PRINCIPLE

A class should have only one reason to change. **Example**

```
1 class BankService
2     deposit(amount, accountNumber)
3     withdraw(amount, accountNumber)
4     printDetails(accountNumber)
5     getLoanInfo(loanType)
6     sendOTP(medium)
```

Listing 1: C sharp code

The BankService class performs a lot of responsibilities. It will be changed due to several reasons by several actors. For example, if any new loan policy is introduced, the class needs to be changed. Similarly, different printing mechanisms may be required in the app. Again it will be changed.

Scenario   **Marks 20**

A c# class *Employee* file is given. It keeps the information of an employee and performs several tasks.

1. Create a project EmployeeManagementApp. Add the given Employee class within the project. Add a program class with the main method and call the GenerateReport method. Compile and run the project.   **2**

2. Uncomment any commented code. Remove any unused code. Fix errors and run the project again.   **3**

3. (some other code needs) to delete an employee, find an employee by name, and update the data of an employee. Write code to solve the requirements.   **5**

4. Identify violation of SOLID principles and/or code smells. Explain which part is violating which principle and/or has code smells.   **4**

5. Write a better solution that will solve the problems.   **6**