

CSE443 - Object Oriented Analysis and Design
Fall 2018-2019

Homework 2

Rule 1: no plagiarism (from colleagues or other sources). Detected cases of plagiarism will lead to a significant penalty of your course grade at the end of the semester.

Rule 2: no late submissions! Even if it is late by one minute, it will be ignored. Learning to plan your schedule according to deadlines is part of your education and an invaluable professional asset.

What to submit: a) the source code of your project fully documented (with javadoc), b) a nicely formatted pdf report of your design decision explanations and class diagrams and c) an executable demo that fully illustrates your program's capabilities whenever code is requested.

Question 1 (100 points): After long hours at work you have finally completed the new java interface for credit card payments:

```
public interface ModernPayment{
    int pay(String cardNo, float amount, String destination, String installments);
}
```

However your company is still using extensively an old binary library from the 1980s called "TurboPayment" for card payments that it cannot afford to replace. "TurboPayment"'s interface looks like this:

```
public interface TurboPayment{
    int payInTurbo(String turboCardNo, float turboAmount,
        String destinationTurboOfCourse, String installmentsButInTurbo);
}
```

Where all the method parameters have the same meaning and role as in ModernPayment.

Implement in Java a design pattern so that you can continue using all the classes implementing the TurboPayment interface with your new ModernPayment interface. Don't forget that the old library is binary, so you cannot modify the interface TurboPayment or the classes that implement it.

Good luck.