

## Homework 4

For this homework I am using Adapter design pattern. So, I started by making one interface named cardPay.java. This file contains all the methods name I am about to use in the homework, in other words declaring the methods I need same as making a .h file for c++. Then I made another class file named as cardPayAdapter which implements cardPay. Here all the necessary implementation of the defined methods are done. Like setters and getters. And finally, in my javafxtemplate I made two windows first primary window to start and then another window where I need to enter all the details which is asked for.

### Benefits of Adapter pattern:

As we know the UML for adapter it allows us to communicate and interact two or more incompatible objects together. Also allowing us to reuse the older existing functions our applications. Allows more flexibility in design.

### Drawbacks of Adapter patter:

Unnecessarily increasing the size of the code inheritance is used less and lot of code is needlessly duplicated between classes. Also, sometimes more adaptations are required along an adapter chain to reach the type, which is required, hence sometimes directly coding the required functions is more easier rather than making so many interfaces and to inherit them.