## 1.0.a) Which programming language you will use to implement this project? Remember that the language you select must allow you to use MVC and DTO patterns.

We will be using Java to implement our designated project.

## 1.0.b) How does this language support the MVC pattern, and other architectural patterns seen in class?

In Java, classes can be grouped into packages. We can create 3 packages, “Model”, “View”, and “Controller” and store relevant files within. This is useful for physically, visually, and psychologically organising our project into the MVC pattern.

At a more hands-on level, Java (Since JDK 1.0), has inbuilt interfaces for “Observer” and “Observable”. These are powerful interfaces as they support the MVC pattern by allowing the Model(s) to observe any changes passed on by the Controller(s).

Java also allows easy implementation of the DAO pattern, with separate classes allowing fully decoupled components to be created and used. Furthermore, Java allows for creating our own interfaces, which can be taken advantage of when creating a DAO API, that can be implemented by other, more specific classes.

## 1.0.c) Why did you choose this lanaguage and not another? What does your selection have that no other language has?

1. All our team members have had at least 1 year of experience with the Java programming language.

2. We have all previously implemented MVC pattern-based programs using Java.

3. While Python can be used for OO programming, our team does not have experience doing so.

4. As a team, we cumulatively have little to no experience with C++.

# 1.0.d) What is the expertise of our teammates in this language?

Our team has been taught from scratch and have successfully completed several projects and the most recent project being a modified “Blackjack” card game where we made use of interfaces, and more importantly, explicitly used the MVC pattern - “Model” was used for the bulk logic of the project, “View” was used for our AWT/Swing GUI components, and “Controller” was used to allow user input to affect what went on during the game.