**Project Purpose:**

1. The main purpose of the project was to learn the basic concepts of utilization of Sockets for communication between the processes. While doing this project I came to know how to handle the ports and server sockets.
2. The given project is to implement a Movie ticket system where a client will view movie choices and purchases tickets.

**Lesson Learnt:** While doing this I under stood that

* How to create a server socket and start a server using the java.
* How to create a client socket and start a client using the java

**Project Implementation:**

1. Our implementation of the project is done in the JAVA using JDK 1.7
2. We designed the classes Agent, Boxoffice, Client, Purchase Protocol, Server

Boxoffice.Java

Author: Vinay

Description: It reads the ticket information from the input file. With the use of inner methods it gives the list of currently running movies. If the tickets are requested it checks the availability and if available it will return the Boolean true and maintain the count. And this ticket count is maintained safe by using the semaphore concept.

Agent.java

Author: Vinay

Description: This class represents the Box Office Agent. In this class we actually create the runnable thread. In this it will receive the client socket message and it will parse the incoming message and based on the message it will run through the loop and perform the designated work written in the loop and once the process is done it will give the message back to the output stream. Let me explain with an example if a message ‘0’ comes then the message will be parsed and the loop will be started and the case where GET\_MOVIE\_LIST will be selected and the output of movie list will be printed and message will be sent back as ‘0’ which means success.

Client.java

Author: Vinay

Description: This class display the menu to the user read the input form the user and according to the user action it will create message form and send the message to the server. It will use the server socket and it will get the output stream. It will create the message and append to the output stream with a new line character at the end and flushes the output stream. It waits for the server response and once the response it display the corresponding message to the user

PurchaseProtocol.java

Author: Vinay

Description: it will contain all the message indicator values

Server.java

Author: Vinay

Description: This class creates a server socket and creates a thread and passes it to the agent and waits for the client response.