# CS 155 Computer Science I **Spring** 2020

**Project #1 – The Box Office**

**PROJECT COMPONENTS:**

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| **Project Part, Deadline, and Value** | **Description** |
| I: Design Document  Due: Thursday before class  Value: 30 percent | Using the provided guideline, create a design document that outlines the six components of your problem solution. |
| II: Program Source Code  Due: Monday before midnight  Value: 70 percent | This is your program. Be sure it successfully compiles, is tested for correctness, and it follows style guidelines (meaning variable names, comments, etc.) |

**THE PROBLEM:**

The local cinema must send 80% of its ticket receipts to the movie distributor. The manager has asked you to write a small program that will print an invoice for weekly ticket income and profits for a given movie.

Adult tickets sell for $7.50 and children tickets are $4.75. The program will ask the user for the name of the movie, the number of adults tickets sold, and the number of children tickets sold. Use a C-String to store the movie name.

The program will compute the gross box office revenue, the distributor amount, and the net profit. It will then echo back the movie name along with the three computed values. It should display the amounts using a dollar sign and two decimal places (use setprecision() ). Use setw() to get the decimal places to align. An interaction should look similar to this:

What is the name of the movie? Hoosiers

How many adult tickets sold? 211

How many children tickets sold? 73

Movie Name: Hoosiers

Gross Box Office Revenue: $ 1929.25

Distributor Amount: $ 1543.40

Net Profit: $ 385.85

**FOR FULL CREDIT**: Follow directions carefully and submit each part to Canvas by the deadline.