Program Design Document Spring, 2017

Adam Risher

CS155 – Section 01

Project #1 – The Box Office

Due: Tuesday, January 31, 2017

**Program Requirements:**

This program will computer the total revenue for a local cinema. It will then calculate the amount that will be sent to the movie distributor. Finally, it will compute the net profit for the local theater.

**Program Inputs:**

Name of Movie (c-string), number of adult tickets (integer), number of children tickets (integer)

The integer values must be non-negative.

**Program Outputs:**

Name of the movie (c-string), gross box office Profit (double), distributor amount (double), net profit (double)

All number outputs will be displayed with a $ and 2 decimal places

**Solution Overview:**

The program will begin by having the user enter a movie name, the number of adult tickets, and the number of children tickets.

Compute gross profit = adult ticket count \* 7.50 + children ticket count \* 4.75

Compute the distributor amount = gross profit \* distributor cut

Compute net profit = gross profit – distributor amount

Once these 3 values are computed, they are displayed to the screen with the movie name.

**Algorithm Flowchart:**



**Test Plan:**

Three test cases will be run:

1. Movie name of Hoosiers, 211 adult tickets, 73 children tickets
2. Movie name of Clerks, 100 adult tickets, 25 children tickets
3. Movie name of Star Wars, 300 adults, 150 children