# CPT 167—Intro to Programming Logic

## Program #5

Due Date: _____

## PROGRAM DESCRIPTION

You are going to revise the ticket-processing program to make it a more professional program, one that will be more representative of commercial program design. You have now studied the use of additional functions to aid main in the overall processing. Real computer programs consist of many of these functions. Some are pretty small, intended to perform a simple but very important calculation. Others are a bit larger in scope. For this program you will need to revise Program #4 to incorporate such functions.

Since Program #4 is the background for this program, you will definitely want to have its directions handy. I will leave out many of the details that you can glean from its directions, and simply concentrate on the changes required. Essentially, when you have this program finished, it should perform nearly the same as Program #4 did. Of course, you might want to improve some of its look and feel, but the ticket-selling operation should still work the same.

## SPECIFIC DIRECTIONS

Use the following functions by name in your design for this program. If you wish to use more, that's OK, as long as you include these as well. Hint: you will find it easiest just to accumulate all the final totals in main.

| | |
|---|---|
| main | Your central loop will be here, as well as a lot more. Use the other functions for their specific purposes. |
| getTicketType | Present a menu of the three ticket types. Input the user's choice and make sure it is a valid choice. If it is invalid, then ask for another choice. Keep asking until the user enters a valid ticket type. Return to main the user's choice. |
| findTicketPrice | Receives the ticket type and returns the price of one ticket, including free tickets. |
| displayPurchase | Displays the information for one customer purchase: the type of ticket(s) purchased; how many were purchased; and the cost of the purchase. |
| displayFinalReport | Format and display the final numbers. See the totals required to be displayed and an example report in the Program #4 directions. |

Before displaying the final report, you must clear the screen, so the final totals will look great! Your final results should again be laid out in a business-like report with headings, etc. A simple bunch of statements, like "Total number of tickets sold: 1345" just doesn't impress our boss.

Zip your project directory together. The name of the project you create in Eclipse should be this: *name* **Program 5 Project**, where *name* is your last name. And as always, when you add the HTML file, remember to give it some sort of meaningful name for this program.

**TURN IN:** a data dictionary for this program, a complete flowchart, and the zipped project directory. Submit everything using the Dropbox in D2L.