



Tennessee
TECH

CSC 1300 LAB 6 PURPLE

FALL 2024

CONCEPTS

- Menu based program
- Functions, returning data from a function, sending data to a function
- Loops, nested loops
- Switch statement
- Running total
- Formatting output, escape characters
- Input Files

HALLOWEEN TOWN – MONSTER TOYS



Image found on Google by Jose Antonio Mendez

DESCRIPTION / SPECIFICATIONS

1. Create a source file named **lab6.cpp**.

2. Complete the program for Halloween Town. The program will first display a menu giving the manager three options – 1 - Enter Monster Toys, 2 – Display Something Cool or 3 – End the Program.
3. If the manager chooses 1, then the program will prompt the user for the number of monsters that worked each of the last three years. For each teller the program should ask for the number of toys for each of the last three years. The output should provide the number of monsters and the total number of toys by all the monsters over the last three years.
4. If the manager chooses 2, then you will display ASCII art using files and you will keep track of how many times your user enters this function.
5. If the manager chooses 3, then the program should print how many times the user chose to display the ASCII art and then say “Bye!” and end.

FUNCTIONS

MAIN FUNCTION

1. Use a loop to continue running the program until the user selects to end the program.
2. Call the function **DisplayMenuGetChoice**:
 - a. Arguments: none
 - b. Returns: user’s menu choice
3. Use a switch statement to determine what to do with the user’s choice.
 - a. If the user selects 1, then call a function named **MonsterToys**:
 - i. Arguments: none
 - ii. Returns: none
 - b. If the user selects 2, then call the function named **DisplayCoolMessage**:
 - i. Arguments: current number of times the cool message has displayed
 - ii. Returns: updated number of times the cool message has displayed
 - c. If the user selects 3, then print out how many times the user displayed the cool message and then print “Bye!” Refer to the sample output for the format.

DISPLAYMENUGETCHOICE FUNCTION

1. Print out the menu of choices:

```
WELCOME TO HALLOWEEN TOWN!  
Please choose one of the following options:  
1 - Enter number of Monster toys  
2 - Display Something Cool  
3 - End the Program
```

CHOICE:

2. Read in the user’s choice.
3. Validate the user’s choice with a loop.
4. Return the user’s choice from this function.

GOBLINSICKDAYS FUNCTION

1. Ask user for number of monsters.
 - a. For each monster you need to ask how many days the Goblin was sick for year 1, year2, & year 3.

- b. Keep a running total of how many monsters there are in these three years and how many total toys were made by all the monsters over the last three years.
2. Refer to sample output to see how your output should look.

DISPLAYCOOLMESSAGE FUNCTION

1. Ask the user for the .txt file name and check to see if the file can be opened. If the file can't be opened, the function should return without adding to the total times something cool was displayed.
2. Loop through each line of the file and print it.
3. The art is given to you in iLearn (3 text files), however feel free to change it. To change it, you can get ideas & help from here: <http://patorjk.com/software/taag/#p=display&f=Big%20Money-ne&t=Gringotts>

SAMPLE OUTPUT

User input is highlighted in yellow.

WELCOME TO HALLOWEEN TOWN!

Please choose one of the following options:

- ```
1 - Enter number of Monster toys
2 - Display Something Cool
3 - End the Program
```

CHOICE: 5

Invalid choice. Please choose 1-3.

CHOICE: 2

What is the name of the text file with the ASCII image? **sally.txt**

[illegible]

What is the name of the text file with the ASCII image? `jack skellington.txt`



Create a zip file named **username\_lab5** containing the following .cpp files and upload it to ilearn. Replace labPartner1username with your TTU username. Example: **acrockett43\_lab6.zip**

- lab6.cpp
- lab6ReportProof

Remember to download and check your .zip file to make sure that it includes your .cpp and lab report proof.