



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/Output Files

HALLOWEEN TOWN – MONSTER TOYS



Image found on Google by Jose Antonio Mendez

NO PAIRED PROGRAMMING OPTION

This is an **individual assignment**. As per the syllabus, you may still talk with other students about the assignment, **however**, you are not allowed to share more than a few lines of code with them.

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. This information should be outputted to a file.
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.

- ## MONSTERTOYS FUNCTION

- ## DISPLAYCOOLMESSAGE FUNCTION

- ## SAMPLE OUTPUT

WELCOME TO HALLOWEEN TOWN!

Please choose one of the following options:

- 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? something silly
Oh no! Looks like the file could not be opened



monsters.txt



File

Edit

View

```
Monster 1, year 1: 8 toys.  
Monster 1, year 2: 19 toys.  
Monster 1, year 3: 4 toys.  
Monster 2, year 1: 6 toys.  
Monster 2, year 2: 21 toys.  
Monster 2, year 3: 58 toys.  
Monster 3, year 1: 63 toys.  
Monster 3, year 2: 12 toys.  
Monster 3, year 3: 8 toys.  
The 3 Monsters made a total of 199 toys during the last 3 years
```