CS1428 Lab 6: Fall 2020

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Lab Section: lab 17

Type your name at the top of this sheet. Answer the following questions and turn in this sheet before the end of class. You may use the pre-lab, your book, or internet resources to assist you.

1. (10 pts) Write a WHILE loop that repeatedly prints the value of variable 'var', decreasing it by 0.75 each time, as long as 'var' remains positive. You should never print a negative number.

```
double var;
cin >> var;
while (var >= 0) {
    cout << var;
    var = var - .75;
}
```

2. (10 pts) Write a DO-WHILE loop that repeatedly prints "I'll be back!? (Y or N)" until the user indicates they want to leave the loop by entering the character 'n' or 'N'.

```
char choice;

do {
    cout << "I'll be back!? (Y or N)" << endl;

} while (choice != 'n' || choice != 'N');
```

3. (50 pts) You will be writing a dice gambling game where the user and the computer both roll one six-sided die. Whoever gets the highest roll wins. The game continues until the user is out of money.
   - The user begins the game with $1000.
   - Each round the user is prompted for a bet amount (NOTE: they cannot bet less than $1 nor more money than they have).
   - The user and the computer roll a six-sided die using two random number generators each turn. Don't forget to include "ctime" and "cstdlib" libraries.
   - computer_roll = rand() % 6 + 1;
   - user_roll = rand() % 6 + 1;
   - If the user rolls a higher number, the user wins and gains the money they bet. Otherwise, they lose that money.
   - Once the player quits playing, the user is shown how much money they have left.
   - Make sure you check for bad numeric data. If the user enters invalid data, continuously prompt the user until they enter a valid number.

Sample output

```
Gambling is an addiction...

You currently have $1000
How much would you like to bet?
$1500
ERROR: Invalid bet amount.
Enter the amount you would like to bet: $900
You rolled 3
Your opponent rolled 6
You lose $900
Would you like to continue? (Y or N): Y

You currently have $100
How much would you like to bet?
$100
You rolled 2
Your opponent rolled 4
You lose $100
You are out of money. You can't play anymore.

You ended with $0
```

WRITE your name in the authorship comments at the top of your program.
UPLOAD this pdf with your answers filled in and your source code as lab6.cpp to Canvas.