

Lab 04 - Functions & Selection Statements

Direction: Submit your typed work(s) as an upload(s) to the Labs directory of your GitHub repository or Dropbox, or in your correct Lab04 google classroom assignment. Each part should be a separate files. The files named should be "lab4A.txt" and "lab4B.cpp" respectively.

Part A: In class

Your objective is to write ONLY the line number and the entire corrected line for each line that has a **syntax error** in the code segment below.

```
01 | void G(int a,int& b)
02 | {
03 |     int r = (a - b) * (a * a + a * b + b * b);
04 |     b = r
05 |     return;
06 | }
07 |
08 | int main()
09 | {
10 |     int s;
11 |
12 |     cout << 'Enter a number: ';
13 |     cin >> s;
14 |
15 |     G(s,3);
16 |     cout << s << '\n';
17 |     G(4,s);
18 |     cout << s << "\n";
19 |     Return 0;
20 | }
```

Part B: Take home

Your objective is to write a complete cpp program that defines the following functions and calls them in the main function.

- ☐ A void function named `NextLeapYear()` that takes an int reference parameter. If the parameter is positive, the function assigns the parameter the next leap year after the current value of the parameter; otherwise, it assigns 4 to the parameter.
- ☐ A string function named `ColorCode()` that takes an int parameter. It returns "red" if the parameter is a multiple of 3, "blue" if the parameter is a multiple of 4, "purple" if the parameter is a multiple of both 3 and 4, or "yellow" if the parameter is a mutiple of neither 3 nor 4.
- ☐ A void function named `Sort4()` that takes four double reference parameters named *a*, *b*, *c* and *d* respectively. It swaps the values of the parameters so that $a \leq b \leq c \leq d$.