String Oprations in c++

Write a program for string operations copy, concatenate, check substring, equal, reverse and length without using library functions.

```
#include<iostream>
using namespace std;

string str1, str2, str3, result, choice, yes = "yes", no = "no";
int i, j, p, size, x;
char ch;

void menu() {
   cout << "\n!!!__MENU__!!!\n";
   cout << "1. Find length\n";
   cout << "2. Copy the string\n";
   cout << "3. Reverse the string\n";
   cout << "4. String concatenation\n";
   cout << "5. String comparison\n";
   cout << "6. Find substring\n\n";
   cout << "Enter your choice: ";
   cin >> x;
}

void strLength() {
   for(i = 0; str1[i]; i++) {};
   cout << "\nLength of 1st string is: " << i;
```

```
}

void copy() {
   size = str1.length();
   for(i = 0; i <= size; i++) {
      str3 = str1;
   }
   cout << "\nCopied string is: ";
   cout << str3;
}

void reverseStr() {
   size = str1.length();
   cout << "\nReverse of 1st string = ";
   for(i = size; i >= 0; i--) {
      cout << str1[i];
   }
   cout << endl;
}

void compare() {
   if(str1 != str2) {
      cout << str1 << " is not equal to " << str2 << endl;
      if(str1 > str2)
         cout << str1 << " is greater than " << str2 << endl;
      else
         cout << str2 << " is greater than " << str1 << endl;
```

```
    }
    else {
        cout << str1 << " is equal to " << str2 << endl;
    }
}

void concatenate() {
    for(i = 0; i < str1.length(); i++) {
        result = result + str1[i];
    }
    for(i = 0; i < str2.length(); i++) {
        result = result + str2[i];
    }
    cout << "The concatenation of strings is: " << result;
}

void subStr() {
    for(p = 0; str2[p] != '\0'; p++);
    for(i = 0, j = 0; str1[i] != '\0' && str2[j] != '\0'; i++) {
        if(str1[i] == str2[j]) {
            j++;
        }
        else {
            j = 0;
        }
    }
    if(j == i)
```

```
        cout << "Substring found at position " << i - j + 1;
    else
        cout << "Substring not found";
}

int main(int argc, char const *argv[])
{
    cout << "Enter 1st string here\n";
    getline(cin, str1);
    cout << "You entered: " << str1;

    cout << "\nEnter 2nd string here\n";
    getline(cin, str2);
    cout << "You entered: " << str2 << endl;

    userChoice:
        menu();
        switch (x)
        {
        case 1: strLength();
            break;
        case 2: copy();
            break;
        case 3: reverseStr();
            break;
        case 4: concatenate();
            break;
```

```
        case 5: compare();
            break;
        case 6: subStr();
            break;
        default:
           cout << "Invalid choice\n";
        }
    cout << "\nWant to perform more operations?\n";
    y_n:
    cout << "Choose y/n: ";
    cin >> choice;

    if(choice == "y" || choice == "Y") {
        goto userChoice;
    }
    else if(choice == "n" || choice == "N") {
        cout << "Thank you for 'STRINGING' with us\n";
    }
    else {
        cout << "Invalid input!\n\n";
        goto y_n;
    }
  return 0;
}
```

```
Enter 1st string here
Hello
You entered: Hello
Enter 2nd string here
World
You entered: World

!!!__MENU__!!!
1. Find length
2. Copy the string
3. Reverse the string
4. String concatenation
5. String comparison
6. Find substring

Enter your choice: 1

Length of 1st string is: 5
Want to perform more operations?
Choose y/n: y
```

```
!!!__MENU__!!!
1. Find length
2. Copy the string
3. Reverse the string
4. String concatenation
5. String comparison
6. Find substring

Enter your choice: 2

Copied string is: Hello
Want to perform more operations?
Choose y/n: y

!!!__MENU__!!!
1. Find length
2. Copy the string
3. Reverse the string
4. String concatenation
5. String comparison
6. Find substring

Enter your choice: 3

Reverse of 1st string = olleH

Want to perform more operations?
Choose y/n: y
```

```
!!!__MENU__!!!
1. Find length
2. Copy the string
3. Reverse the string
4. String concatenation
5. String comparison
6. Find substring

Enter your choice: 4
The concatenation of strings is: HelloWorld
Want to perform more operations?
Choose y/n: y

!!!__MENU__!!!
1. Find length
2. Copy the string
3. Reverse the string
4. String concatenation
5. String comparison
6. Find substring

Enter your choice: 5
Hello is not equal to World
World is greater than Hello

Want to perform more operations?
Choose y/n: y
```

```
!!!__MENU__!!!
1. Find length
2. Copy the string
3. Reverse the string
4. String concatenation
5. String comparison
6. Find substring

Enter your choice: 6
Substring not found
Want to perform more operations?
Choose y/n: n
Thank you for 'STRINGING' with us


...Program finished with exit code 0
Press ENTER to exit console.
```