

ธนพล สิทธิมาศ

6706021410249

```
#include <iostream>
using namespace std;
int main() {
    string input;
    int Upper = 0;
    int Lower = 0;
    int Spaces = 0;
    int Special = 0;

    cout << "Enter message: ";
    getline(cin, input);

    for (char c : input) {
        // Check for uppercase letters
        if (c >= 'A' && c <= 'Z') {
            Upper++;
        }
        // Check for lowercase letters
        else if (c >= 'a' && c <= 'z') {
            Lower++;
        }
        // Check for spaces
        else if (c == ' ') {
            Spaces++;
        }
        // Everything else is considered special characters
        else {
            Special++;
        }
    }

    cout << "Your message has " << Upper << " Upper case characters\n";
    cout << "Your message has " << Lower << " Lower case characters\n";
    cout << "Your message has " << Spaces << " Space characters\n";
    cout << "Your message has " << Special << " Special characters\n";
}
```

```
PS D:\KMUTNB\term1\Structure_program\LAB\ho
Enter message: Hello World!
Your message has 2 Upper case characters
Your message has 8 Lower case characters
Your message has 2 Space characters
Your message has 1 Special characters
PS D:\KMUTNB\term1\Structure_program\LAB\ho
```

```
Enter message: Three Man Down
Your message has 3 Upper case characters
Your message has 9 Lower case characters
Your message has 2 Space characters
Your message has 0 Special characters
```

```
#include <iostream>
using namespace std;
int main()
{
    int s,x1,x2;
    cout << "Enter your x1 : ";
    cin >> x1;
    cout << "Enter your s : ";
    cin >> s;
    if ( s > -1000 && x1 > -1000 && s < 1000 && x1 < 1000)
    {
        x2 = (s * 2) - x1 ;
        cout << x2;
    }else{
        cout << "Please enter number between -1000 to 1000 ";
    }
}
```

```
Enter your x1 : 4
Enter your s : 3
2
PS D:\KMUTNB\term1\St
```

```
ork\week6> cd "d:\KMU
Enter your x1 : 11
Enter your s : 15
19
PS D:\KMUTNB\term1\St
```

```
#include <iostream>
using namespace std;
int main() {
    int position = 0;
    cout << "What do you see cups move (Ex. AABCC): ";
    string moves;
    cin >> moves;

    for (char move : moves) {
        switch (move) {
            case 'A':
                if (position == 0) {
                    position = 1;
                } else if (position == 1) {
                    position = 0;
                }
                break;
            case 'B':
                if (position == 1) {
                    position = 2;
                } else if (position == 2) {
                    position = 1;
                }
                break;
            case 'C':
                if (position == 0) {
                    position = 2;
                } else if (position == 2) {
                    position = 0;
                }
                break;
            default:
                cout << "Somehing went wrong: " << move << endl;
        }
    }
}
```

```
string positions[] = {"Left", "Mid", "Right"};
cout << "ball is in " << positions[position] << " cup" << endl;
}
```

```
swap(j, i); // swap
What do you see cups move (Ex. AABCC): ABCACB
ball is in Right cup
```

```
What do you see cups move (Ex. AABCC): ABC
ball is in Left cup
```