



**AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)  
FACULTY OF SCIENCE & TECHNOLOGY**

**COMPILAR DESIGN**

Section: G

Lab 3

**Submitted By**

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**Code :**

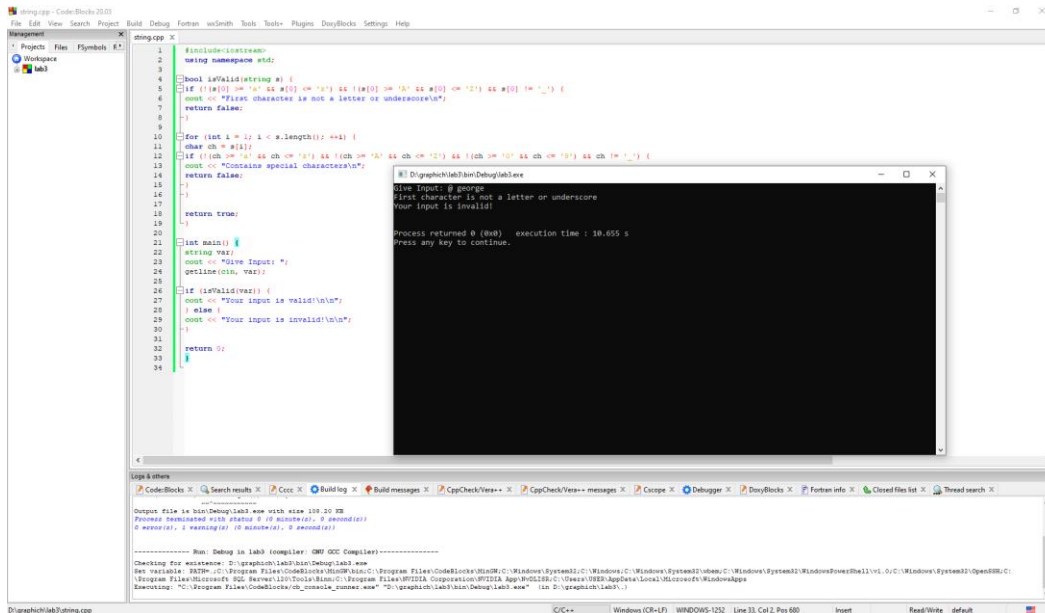
```
#include<iostream>
using namespace std;

bool isValid(string s) {
    if (!(s[0] >= 'a' && s[0] <= 'z') && !(s[0] >= 'A' && s[0] <= 'Z') && s[0] != '_') {
        cout << "First character is not a letter or underscore\n";
        return false;
    }
    for (int i = 1; i < s.length(); ++i) {
        char ch = s[i];
        if (!(ch >= 'a' && ch <= 'z') && !(ch >= 'A' && ch <= 'Z') && !(ch >= '0' && ch <= '9') && ch != '_') {
            cout << "Contains special characters\n";
            return false;
        }
    }
    return true;
}

int main() {
    string var;
    cout << "Give Input: ";
    getline(cin, var);

    if (isValid(var)) {
        cout << "Your input is valid!\n\n";
    } else {
        cout << "Your input is invalid!\n\n";
    }
    return 0;
}
```

## Output:-



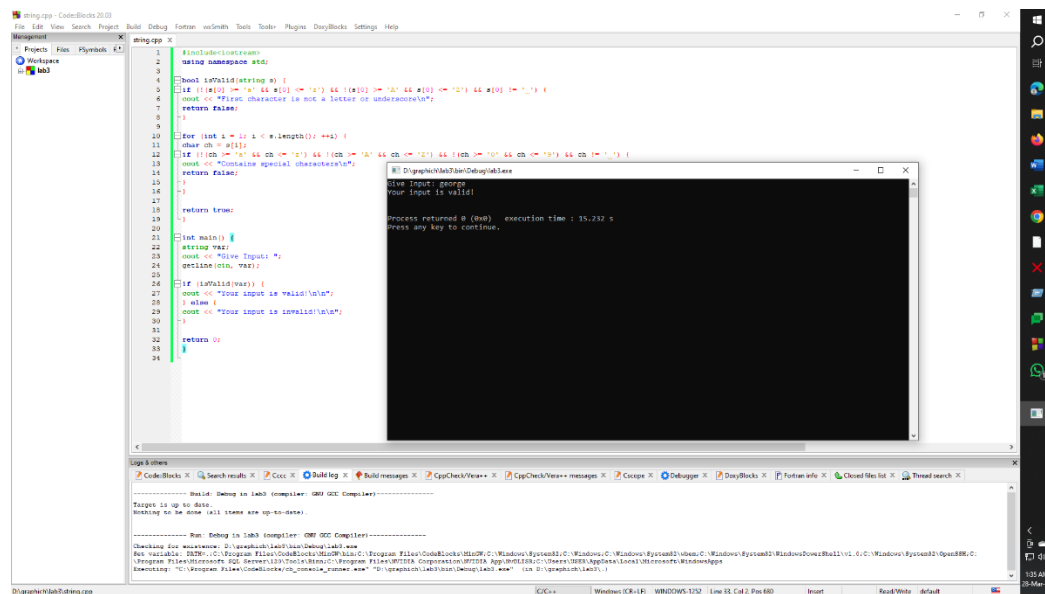
```
#include <iostream>
using namespace std;

bool isValid(string s) {
    if ((s[0] >= 'a' && s[0] <= 'z') && (s[1] >= '0' && s[1] <= '9') && s[2] >= '1' && s[2] <= '9') {
        cout << "First character is not a letter or underscore!\n";
        return false;
    }
    for (int i = 1; i < s.length(); ++i) {
        char ch = s[i];
        if ((ch >= 'a' && ch <= 'z') && (ch >= '0' && ch <= '9') && (ch >= '1' && ch <= '9')) {
            cout << "Contains special characters!\n";
            return false;
        }
    }
    return true;
}

int main() {
    string var;
    cout << "Give Input: ";
    getline(cin, var);
    if (isValid(var)) {
        cout << "Your input is valid!\n";
    } else {
        cout << "Your input is invalid!\n";
    }
    return 0;
}
```

Give Input: george  
First character is not a letter or underscore  
Your input is invalid!  
Process returned 0 (0x0) execution time : 10.655 s  
Press any key to continue.

Figure: If characters were entered, a invalid output will be displayed.



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

bool isValid(string s) {
    if ((s[0] >= 'a' && s[0] <= 'z') && (s[1] >= '0' && s[1] <= '9') && (s[2] >= '1' && s[2] <= '9')) {
        cout << "First character is not a letter or underscore!\n";
        return false;
    }
    for (int i = 1; i < s.length(); ++i) {
        char ch = s[i];
        if ((ch >= 'a' && ch <= 'z') && (ch >= '0' && ch <= '9') && (ch >= '1' && ch <= '9')) {
            cout << "Contains special characters!\n";
            return false;
        }
    }
    return true;
}

int main() {
    string var;
    cout << "Give Input: ";
    getline(cin, var);
    if (isValid(var)) {
        cout << "Your input is valid!\n";
    } else {
        cout << "Your input is invalid!\n";
    }
    return 0;
}
```

Give Input: george  
Your input is valid!  
Process returned 0 (0x0) execution time : 15.232 s  
Press any key to continue.

Figure: If characters were not entered, a valid output will be displayed.