	Remark
Subject: Competitive Programming Lab (BTCOL606) **Name :** Mohammad Anas Aarif Baig Mirza **Roll No. :** 31 **Class : T.Y Comp** **Batch : T2** **Division: T**	
Expt. No. :07 **Date :** **Title :** **Problem 6:Write a Program to implement QWERTY Problem.**	Signature

Code:

```cpp
// MOHAMMAD_ANAS_31_TY_COMP

#include <iostream>

#include <string>

using namespace std;


int main() {

    string line;


    // QWERTY keyboard layout as a reference string

    string keyboard = "`1234567890-
=QWERTYUIOP[]\\ASDFGHJKL;'ZXCVBNM,./";


    // Read lines until EOF

    while (getline(cin, line)) {

        string decoded = "";
```

```cpp
// Loop through each character in the line
for (int i = 0; i < line.length(); i++) {
    char ch = line[i];

    // If it's a space, keep it as is
    if (ch == ' ') {
        decoded += ' ';
    } else {
        // Search in keyboard string
        int pos = -1;
        for (int j = 0; j < keyboard.length(); j++) {
            if (keyboard[j] == ch) {
                pos = j;
                break;
            }
        }

        // If found and not the first character, take the left character
        if (pos > 0) {
            decoded += keyboard[pos - 1];
        } else {
            decoded += ch; // If not found, add as is
        }
    }
```
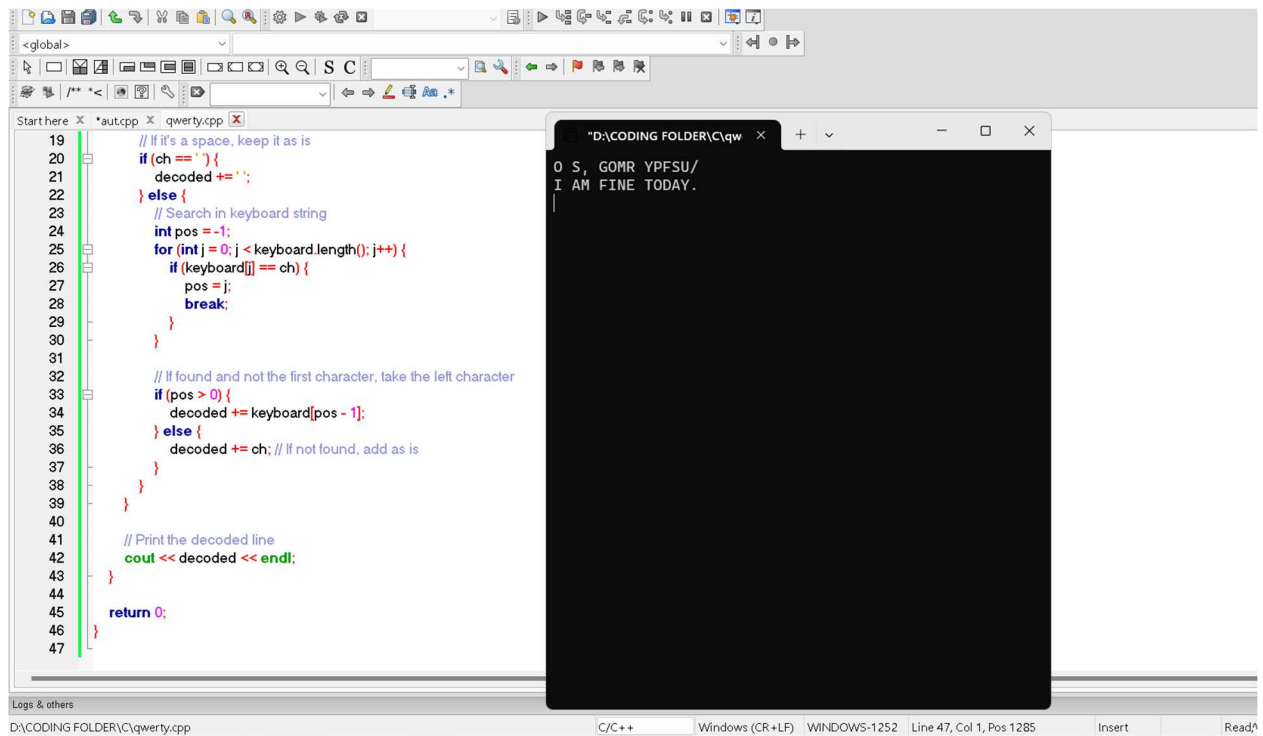
```
        }

        // Print the decoded line
        cout << decoded << endl;
    }


    return 0;
}
```

Output:


```
19          // If it's a space, keep it as is
20          if (ch == ' ') {
21              decoded += ' ';
22          } else {
23              // Search in keyboard string
24              int pos = -1;
25              for (int j = 0; j < keyboard.length(); j++) {
26                  if (keyboard[j] == ch) {
27                      pos = j;
28                      break;
29                  }
30              }
31
32              // If found and not the first character, take the left character
33              if (pos > 0) {
34                  decoded += keyboard[pos - 1];
35              } else {
36                  decoded += ch; // If not found, add as is
37              }
38          }
39      }
40
41      // Print the decoded line
42      cout << decoded << endl;
43  }
44
45  return 0;
46 }
47
```

```
O S, GOMR YPFSU/
I AM FINE TODAY.
```