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INSTITUTE OF TECHNOLOGY

DHULE (M.S.)

DEPARTMENT OF COMPUTER ENGINEERING

Subject : Competitive Programming Lab

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Batch : T2

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Expt. No. :07

Date : 24/03/2025

Title : QWERTY Problem

Remark

Signature

Language: C++

// QWERTY Problem by Meraj 32 T2

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

// All the keys in physical order:

```
const char keyboard[] =
```

```
"`1234567890-= "
```

```
"QWERTYUIOP[]\\"
```

```
"ASDFGHJKL;\\"
```

```
"ZXCVBNM,./";
```

// Return the key immediately to the left of c, or c itself if not found.

```
char decode(char c) {
```

```
    for (int i = 1; keyboard[i]; ++i) {
```

```
        if (keyboard[i] == c)
```

```
            return keyboard[i - 1];
```

```
    }
```

```
    return c;
```

```
}
```

```
int main() {
```

```
    string line;
```

```

while (true) {
    // Prompt for input
    cout << "Input:\n";
    if (!getline(cin, line)) break; // EOF or error → exit loop

    // Show output header
    cout << "Output:\n";

    // Decode and print each character
    for (char c : line)
        cout << decode(c);
    cout << "\n\n"; // blank line before next prompt
}
return 0;
}

```

Output :

The screenshot displays a C++ IDE with the following code and output:

```

8      "QWERTYUIOP[]\\\"
9      "ASDFGHJKL;'\"
10     "ZXCVBNM,./\";
11
12     // Return the key immediately to the left of c,
13     char decode(char c) {
14         for (int i = 1; keyboard[i]; ++i) {
15             if (keyboard[i] == c)
16                 return keyboard[i - 1];
17         }
18         return c;
19     }
20
21     int main() {
22         string line;
23         while (true) {
24             // Prompt for input
25             cout << "Input:\n";
26             if (!getline(cin, line)) break; // EOF or error → exit loop
27
28             // Show output header
29             cout << "Output:\n";
30
31             // Decode and print each character
32             for (char c : line)
33                 cout << decode(c);
34             cout << "\n\n"; // blank line before next prompt
35         }
36         return 0;
37     }
38

```

Output:

```

Input:
ERTVERT
Output:
WERCMER

Input:
ETWETT
Output:
WRQMRR

Input:
WETVMERT/
Output:
QWRCQWER.,

Input:
WRGV/.,
Output:
QEFC.,M

Input:
.,M
Output:
.,M

Input:

```