

6. C Program to Eliminate Left Recursion

```
#include <stdio.h>
#include <ctype.h>
#include <string.h>

int main() {
    char s[50];
    printf("Enter token: ");
    scanf("%s", s);
    if (isalpha(s[0])) {
        printf("Identifier\n");
    }
    else if (isdigit(s[0])) {
        printf("Constant\n");
    }
    else if (strchr("+-*=/", s[0])) {
        printf("Operator\n");
    }
    else {
        printf("Unknown Token\n");
    }
    return 0;
}
```

Output:

The screenshot shows the Dev-C++ IDE interface during the execution of a C++ program named EXP 1 CD.cpp. The code reads a character from standard input and prints its classification as an Identifier, Constant, or Operator. The output window shows the user input "abc" and the resulting identifier classification.

```
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2 #include <ctype.h>
3 #include <string.h>
4 int main() {
5     char s[50];
6     printf("Enter token: ");
7     scanf("%s", s);
8     if (isalpha(s[0])) {
9         printf("Identifier\n");
10    }
11    else if (isdigit(s[0])) {
12        printf("Constant\n");
13    }
14    else if (strchr("+-*=/", s[0])) {
15        printf("Operator\n");
16    }
17 }
```

Output window content:

```
Enter token: abc
Identifier
-----
Process exited after 27.74 seconds with return value 0
Press any key to continue . . .
```

Compiler results window content:

```
Compilation results...
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Reddy\Downloads\EXP 1 CD.exe
- Output Size: 129.61328125 KiB
- Compilation Time: 1.53s
```