Experiment-15

15. Write a C program to implement the back end of the compiler.

Program:

```
#include <stdio.h >
#include <stdio.h >
#include <string.h >
 int main() {
 char icode[10][30], str[20], opr[10];
 int i = 0;
 printf("\n Enter the set of intermediate code (to display enter the exit):\n");
 do
 {
 scanf("%s", icode[i]);
 }
while (strcmp(icode[i++], "exit") != 0);
 printf("\n target code generation");
 i = 0;
 do {
 strcpy(str, icode[i]);
 switch (str[3]) {
 case '+':
 strcpy(opr, "ADD ");
 break;
 case '-':
 strcpy(opr, "SUB ");
 break;
 case '*':
 strcpy(opr, "MUL ");
 break;
 case '/':
 strcpy(opr, "DIV ");
 break;
 }
```

```
 printf("\n\tMov %c,R%d", str[2], i);
 printf("\n\t%s%c,R%d", opr, str[4], i);
 printf("\n\tMov R%d,%c", i, str[0]);
 }
while (strcmp(icode[++i], "exit") != 0);
return 0;
 }
```

Output: