

25. Write a LEX program to identify and count positive and negative Numbers

PROGRAM:

```
/* Definition section */
%option noyywrap

%%
/* Rule section */
[0-9]+      printf("Positive number: %s\n", yytext);
-[0-9]+     printf("Negative number: %s\n", yytext);
[0-9]+\.[0-9]+ printf("Positive decimal number: %s\n", yytext);
-[0-9]+\.[0-9]+ printf("Negative decimal number: %s\n", yytext);
.          printf("Invalid input: %s\n", yytext);
%%
/* User code section */

int positive_count = 0;
int negative_count = 0;

int yywrap() {
    printf("Positive numbers: %d\n", positive_count);
    printf("Negative numbers: %d\n", negative_count);
    return 1;
}

int main() {
    yylex();
    return 0;
}

void yyerror(char *s) {
    printf("%s\n", s);
}
```

INPUT:

```
12
-34
56.78
-90.12
abc
```

OUTPUT:

```
Positive number: 12  
Negative number: -34  
Positive decimal number: 56.78  
Negative decimal number: -90.12  
Invalid input: abc  
Positive numbers: 2  
Negative numbers: 2
```