LAB ASSIGNMENT 4

```
/*
  1.LEX PROGRAM TO IDENTIFY AND COUNT POSITIVE AND NEGATIVE NUMBERS .
  2.LEX PROGRAM TO CHECK WHETHER A GIVEN NUMBER IS ARMSTRONG NUMBER OR NOT .
*/
```

Ans(1)

```
%{
int positive_no = 0, negative_no = 0;
%}

%%
^[-][0-9]+ {negative_no++;
          printf("negative number = %s\n",
               yytext);}

[0-9]+ {positive_no++;
       printf("positive number = %s\n",
              yytext);}
%%


int yywrap(){}
int main()
{
```

```
yylex();
printf ("number of positive numbers = %d,"
      "number of negative numbers = %d\n",
            positive_no, negative_no);

return 0;
}
```

Ans(2)

```
%
{

#include <math.h>
#include <string.h>
          void check(char*);
          %
}
% %
                    [0 - 9]
          + check(yytext);
% %

int main()
{
```

```
	extern FILE* yyin;
	yyin = fopen("num", "r");
	yylex();

	return 0;
}
void check(char* a)
{
	int len = strlen(a), i, num = 0;
	for (i = 0; i < len; i++)
		num = num * 10 + (a[i] - '0');

	int x = 0, y = 0, temp = num;
	while (num > 0) {
		y = pow((num % 10), len);
		x = x + y;
		num = num / 10;
	}

	if (x == temp)
		printf("%d is armstrong number \n", temp);
	else
		printf("%d is not armstrong number\n", temp);
}
```