/* Lex Program to check whether a number is Prime or Not */
Cd Documents
Lex prog4.l
Cc lex.yy.c - lfl
./a.out

```
%{
   /* Definition section */
   #include<stdio.h>
   #include<stdlib.h>
   int flag,c,j;
%}

/* Rule Section */
%%
[0-9]+ {c=atoi(yytext);
         if(c==2)
         {
           printf("\n Prime number");
         }
         else if(c==0 || c==1)
         {
           printf("\n Not a Prime number");
         }
         else
         {
           for(j=2;j<c;j++)
         {
         if(c%j==0)
           flag=1;
         }
         if(flag==1)
           printf("\n Not a prime number");
         else if(flag==0)
           printf("\n Prime number");
         }
       }
%%

// driver code
int main()
 {
```

```
  yylex();
  return 0;
 }
```

/* Lex program to check whether
- given string is Palindrome or Not */
Cd Documents
Lex prog3.l
Cc lex.yy.c - lfl
./a.out

```
%
 {
    int i, j, flag;
    %
 }

/* Rule Section */
% %
    [a - z A - z 0 - 9]*
{
    for (i = 0, j = yyleng - 1; i <= j; i++, j--) {
        if (yytext[i] == yytext[j]) {
            flag = 1;
        }
        else {
            flag = 0;
            break;
        }
    }
    if (flag == 1)
        printf("Given string is Palindrome");
    else
        printf("Given string is not Palindrome");
}
% %

    // driver code
    int main()
{
    printf("Enter a string :");
    yylex();
```

```
    return 0;
}

int yywrap()
{
    return 1;
}
```

/* Lex program to check whether input is digit or not. */
Lex digit.l
Cc lex.yy.c - lfl
./a.out

```
%{
#include<stdio.h>
#include<stdlib.h>
%}
/* Rule Section */
%%
^[0-9]*  printf("digit");
^[^0-9]|[0-9]*[a-zA-Z]  printf("not a digit");
. ;
%%
int main()
{
        // The function that starts the analysis
    yylex();
        return 0;
}
```

/*Lex program to check whether an year is a leap year or not*/
Cd Documents
Lex progo.l
Cc lex.yy.c - lfl
./a.out

```
%{
 void check(char *);
%}

/*Rule Section*/
 %%
[0-9] ;
[0-9][0-9] ;
[0-9][0-9][0-9]  ;
[0-9][0-9][0-9][0-9]  { printf("%s", yytext);check(yytext); }
[0-9][0-9][0-9][0-9][0-9]+ ;
 %%

// driver program
int main()
{
    extern FILE *yyin;
    yyin=fopen("num", "r");

    // The function that starts the analysis
    yylex();
    return 0;

}

void check(char *a)
{
    int x=0, i;

    for(i=0;i<4;i++)
        x=x*10+(a[i]-'0');

    if(x%400==0)
        printf("\tleap year\n");
```

```
    else if(x%4==0&&x%100!=0)
        printf("\tleap year\n");

    else
        printf("\tnot a leap year\n");
}
```