**PRACTICAL-2**

**AIM:**

Implement a lexical analyzer for identification of numbers.

**IMPLEMENTATION:**

* lex <filename with .l extension>
* gcc <newly created .c file> -o <file name for exe file>
* <filename of exe file>

In this case, create an extra text file named abc.txt which will contain some C code to work as input for lexical analysis.

**PROGRAM CODE:**

bin (0|1)\*

oct  [0-7]

char [A-Za-z]\*

dec  [0-9]\*

digit [0-9]

float {digit}+("."{digit}+)?

expo {digit}+("."{digit}+)?("E"("+"|"-")?{digit}+)?

hex  [0-9a-fA-f]+

%%

{bin} printf("\nEntered input is a binary number");

{oct} printf("\nEntered input is a Octal number");

{char} printf("\nEntered input is Char");

{dec} printf("\nEntered input is decimal number");

{float} printf("\nEntered input is float number");

{expo}  printf("\nEntered input is expo. number");

{hex} printf("\nEntered input is hex number");

%%

int yywrap()

{

  return 1;

}

int main()

{

  printf("Program by : \nPARTH PATEL\n19DCS098\n");

  printf("Enter the number to identify it's data-type:");

  yylex();

  return 0;

  }

**OUTPUT:**

