Name: Achyut Shukla Batch: Cs - A1 PRN: 2007012205

Aim: Lex program to convert decimal number to hexadecimal number in a file.

Lex code:

```
%option noyywrap
%{
#include <stdio.h>
int num = 0, digit = 0, count = 0, pcount = 0, rem, i;
char hexAr[] = {'A', 'B', 'C', 'D', 'E', 'F'};
char result[100];
%}

number [0-9]+

%%

{number} {
num = atoi(yytext);
count = 0;
while (num > 0) {
rem = num % 16;
if (rem > 9) {
result[count] = hexAr[rem % 10];
} else {
result[count] = '0' + rem;
}
count += 1;
num = num / 16;
}

for (i = count - 1; i >= 0; i--) {
printf("%c", result[i]);
}
}
[.\n] { printf("%c", yytext[0]); }
%%
```

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```
int main(int argc, char* argv[]) {
if (argc != 2) {
printf("Usage: %s <input file>\n", argv[0]);
return 1;
}

yyin = fopen(argv[1],"r");
if (!yyin) {
printf("Error: Cannot open file %s\n", argv[1]);
return 1;
}
yylex();
return 0;
}
```

Input:

15
9
10
8
4
10236
235
1204000
2360
2597884
7854

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Output: