**Compiler Lab Report**

**Experiment: 02**

**Submitted By**

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**Name of the Experiment**

Identification of various number formats using Flex

**Source Code**

digit [0-9]

odd [13579]

even [24680]

%%

int counter = 0;

{digit}{digit}{digit}{digit}{digit}+ {printf("overflow\n");}

{digit}\*{odd} {printf("odd\n");}

{digit}\*{odd}[26] {printf("DIV\_4\n");}

{digit}\*{even}+[048] {printf("DIV\_4\n");}

[048] {printf("DIV\_4\n");}

[\+|-][0-9]+ {printf("Signed\n");}

[0-9ABCDEFabcdef]+ {printf("HEX\n");}

[\+|-][0-9]+[\.][0-9]+ {printf("Decimal\n");}

[\+|-][0-9]+\.[0-9]+[eE][\+|-][0-9]+ {printf("Scientific\n");}

[0-9][0-9A-Za-z]+ {printf("Strings\n");}

[A-Za-z]+ {printf("Names\n");}

.+ {printf("Unknown\n");}

\n return cnt;

%%

int main() {

int second;

char \*first;

first = yylex ();

return 0;

}

int yywrap(){

return 0;

}

**Sample Input Output**

**Input:** -45.3e-54

**Output:** Scientific

**Input:** -52

**Output:** Signed

**Input:** 5dlsdkAldm

**Output:** String

**Input:** 16

**Output:** Div\_4