

24/1/2020  
Monday

Week 2 HW

1. Write regular definition to display the line of string for the following using LEX.

- (a) Matches the string abc
- (b) Match one or more occurrences of ab concatenated
- (c) Match any string of one or more digits with an optional prefix of + or -

1.1

```
#include <stdio.h>
```

1.3

a abc

b (ab)+

c [+|-]?[0-9]+

1.4

```
{a} {printf("Category A: The matching string is %s\n", yytext);  
      REJECT; }
```

```
{b} {printf("Category B: The matching string is %s\n", yytext);  
      REJECT; }
```

```
{c} {printf("Category C: The matching string is %s\n", yytext); }
```

1.5

```
int main() {  
    yylex();  
    return 1;  
}
```

OUTPUT

-96abc

Category C: The matching string is -96

Category A: The matching string is abc

Category B: The matching string is ab

```
srihari@LAPTOP-AJMTFS87: ~/compiler_design/week2
srihari@LAPTOP-AJMTFS87:~/compiler_design/week2$ ./a.out
abcab09
Category A: The matching string is abc
Category B: The matching string is ab
abcCategory B: The matching string is ab
abCategory C: The matching string is 09

+456cab
Category C: The matching string is +456
cCategory B: The matching string is ab
ab
-96abc
Category C: The matching string is -96
Category A: The matching string is abc
Category B: The matching string is ab
abc
^C
srihari@LAPTOP-AJMTFS87:~/compiler_design/week2$ cat assign1a.1
%{
#include<stdio.h>
%}

a abc
b (ab)+
c [+|-]?[0-9]+

%%
{a} {printf("Category A: The matching string is %s\n",yytext);REJECT;}
{b} {printf("Category B: The matching string is %s\n",yytext);REJECT;}
{c} {printf("Category C: The matching string is %s\n",yytext);}
%%

int main(){
    yylex();
    return 1;
}

srihari@LAPTOP-AJMTFS87:~/compiler_design/week2$
```

