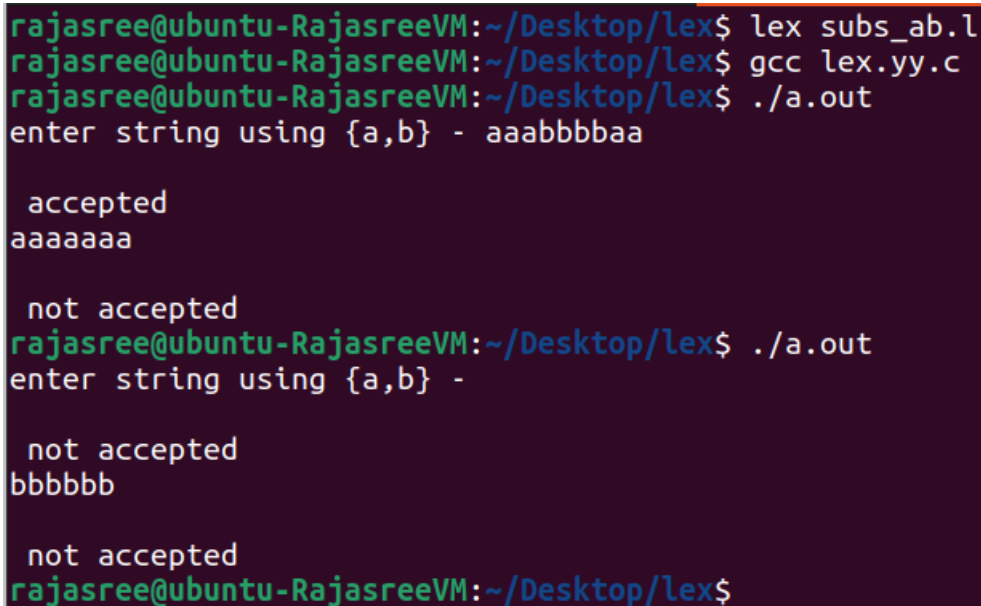


Q.12>>Write a lex code to form the minimized DFA that accepts all strings with substring 'ab', where $\sigma = \{a,b\}$.

```
%s A B
%%
<INITIAL>a BEGIN A;
<INITIAL>b BEGIN INITIAL;
<INITIAL>\n BEGIN INITIAL; printf("\n not accepted\n");
<A>a BEGIN A;
<A>b BEGIN B;
<A>\n BEGIN INITIAL; printf("\n not accepted\n");
<B>a BEGIN B;
<B>b BEGIN B;
<B>\n BEGIN INITIAL; printf("\n accepted\n");
. ;
%%
int main()
{
    printf("enter string using {a,b} - ");
    yylex();
    return 0;
}
int yywrap()
{
    return 1;
}
```



```
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$ lex subs_ab.l
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$ gcc lex.yy.c
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$ ./a.out
enter string using {a,b} - aaabbbbbaa

    accepted
aaaaaaa

    not accepted
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$ ./a.out
enter string using {a,b} -

    not accepted
bbbbbb

    not accepted
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$
```