7b) Program to recognize strings 'aaab', 'abbb', 'ab' and 'a' using the grammar ($a^n b^n$, n>= 0).

7b.l

```
%{
  #include "y.tab.h"
%}
 %%
[aA] {return A;}
[bB] {return B;}
\n {return NL;}
. {return yytext[0];}
%%
 int yywrap()
 {
  return 1;
 }
```

7b.y

```
%{
  #include<stdio.h>
  #include<stdlib.h>
%}
 %token A B NL
 %%
stmt: S NL  { printf("valid string\n");
       exit(0); }
;
S: A S B |
;
%%
 int yyerror(char *msg)
 {
```
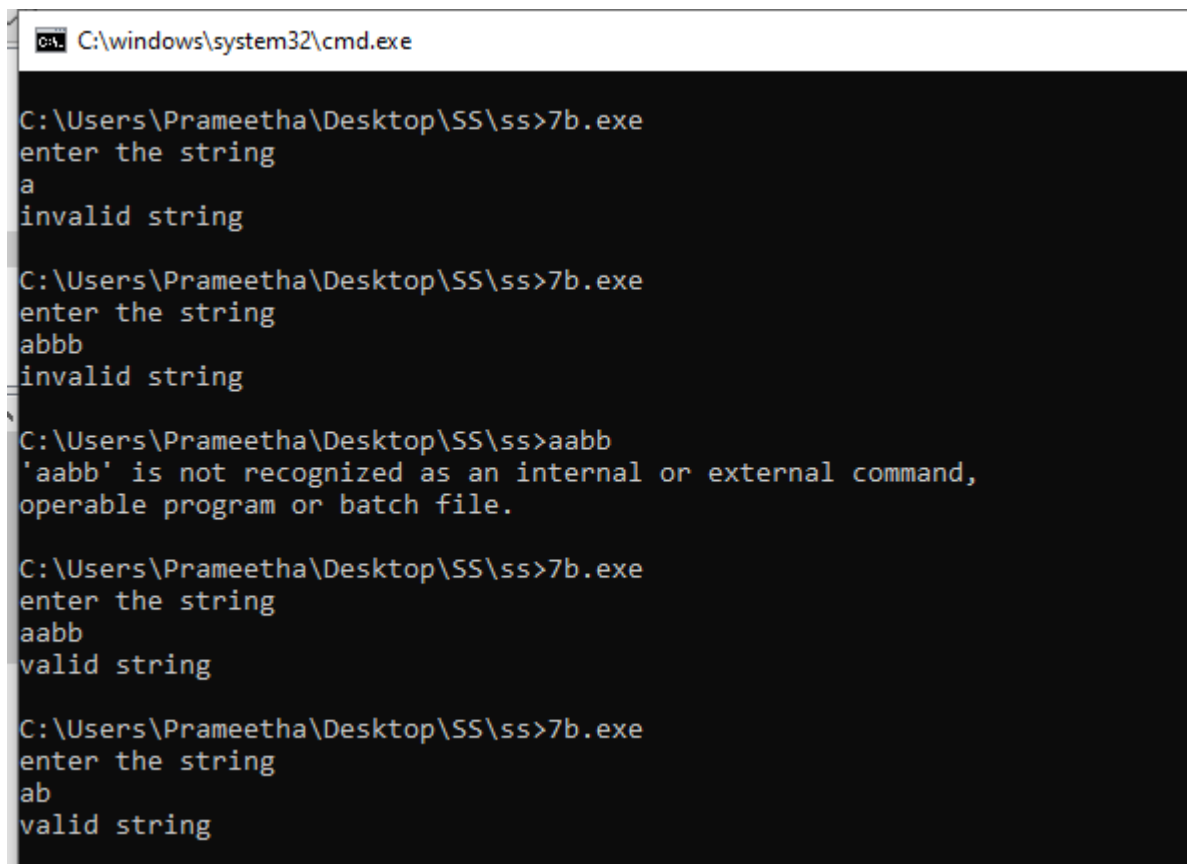
```
printf("invalid string\n");

exit(0);

}

main()

{

printf("enter the string\n");

yyparse();

}
```

Commands For Execution

lex 7b.l

yacc 7b.y

yacc -y -d 7b.y

gcc lex.yy.c y.tab.c -o 7b.exe

7b.exe

Output

```
C:\windows\system32\cmd.exe

C:\Users\Prameetha\Desktop\SS\ss>7b.exe
enter the string
a
invalid string

C:\Users\Prameetha\Desktop\SS\ss>7b.exe
enter the string
abbb
invalid string

C:\Users\Prameetha\Desktop\SS\ss>aabb
'aabb' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\Prameetha\Desktop\SS\ss>7b.exe
enter the string
aabb
valid string

C:\Users\Prameetha\Desktop\SS\ss>7b.exe
enter the string
ab
valid string
```