2. Develop, Implement and Execute a program using YACC tool to recognize all strings ending with *b* preceded by *n* *a's* using the grammar $a^n b$ (note: input *n* value)

2.l

```
%{
#include"y.tab.h"
%}
%%
a        {return A;}
b        {return B;}
\n       ;
.        {return yytext[0];}
%%
```

2.y

```
%{
#include<stdio.h>
int n,count=0;
%}
%token A B
%%
str:str1B {if(count!=n) yyerror();}
|B {if(count!=n) yyerror();}
str1:str1A {count++;}
|A {count++;}
;
%%
main()
{
        printf("Enter the value of n\n");
        scanf("%d",&n);
        printf("Enter the string\n");
        yyparse();
        printf("The string is valid\n");
}
```

```
int yyerror()
{
        printf("Invalid string\n");
        exit(0);
}
```

Execution Steps:

yacc –d 2.y

lex 2.l

cc lex.yy.c y.tab.c –ll

. /a.out