```cpp
#include<iostream>
#include<string.h>
#define max 50
using namespace std;
class STACK
{
private:
char a[max];
int top;
public:
STACK()
{
top=-1;
}
void push(char);
void reverse();
void palindrome();
};
void STACK::push(char c)
{
top++;
a[top] = c;
//a[top+1]='\0';
}
void STACK::reverse()
{
char str[max];
cout<<"\n\nReverse string is : ";
for(int i=top,j=0; i>=0; i--,j++)
{
cout<<a[i];
```

```cpp
str[j]=a[i];
}
cout<<endl;
}
void STACK::palindrome()
{
char str[max];
int i,j;
for(i=top,j=0; i>=0; i--,j++)
{
str[j]=a[i];
}
str[j]='\0';
if(strcmp(str,a) == 0)
cout<<"\n\nString is palindrome...";
else
cout<<"\n\nString is not palindrome...";
}
int main()
{
STACK stack;
char str[max];
int i=0;
cout<<"\nEnter string to be reversed and check is it palindrome or not : \n\n";
cin.getline(str , 50);
while(str[i] != '\0')
{
stack.push(str[i]);
i++;
}
stack.palindrome();
```

```
      stack.reverse();

   }
```