```
#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 convert(char[]);
		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];
		str[j]=a[i];
	}

	cout<<endl;
}
```

```
void STACK::convert(char str[])
{
	int j,k,len = strlen(str);

	for(j=0, k=0; j<len; j++)
	{
		if( ( (int)str[j] >= 97 && (int)str[j] <=122 ) || ( (int)str[j] >= 65 && (int)str[j] <=90 ))
		{
			if( (int)str[j] <=90 )
			{
				str[k] = (char)( (int)str[j] + 32 );
			}else
			{
				str[k] = str[j];
			}

			k++;
		}
	}
	str[k]='\0';

	cout<<endl<<"Converted String : "<<str<<"\n";
}




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);

	stack.convert(str);

	while(str[i] != '\0')
	{
		stack.push(str[i]);
		i++;
	}

	stack.palindrome();

	stack.reverse();

}
```