**ROLL NO:-45**

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**PRACTICAL NO:-**

**PRACTICAL NAME :- IMPLEMENTATION OF STACK**

#include"iostream.h"

#include"conio.h"

class stack

{

private:

int arr[20],size,top;

public:

stack(int par)

{

size=par;

top=0;

}

int isempty()

{

if(top==0)

{

return 1;

}

return 0;

}

int isfull()

{

if(top==size)

{

return 1;

}

return 0;

}

int stack\_add(int ele)

{

if(isfull())

{

cout<<endl<<"Stack is full";

return NULL;

}

else

{

top=top+1;

arr[top]=ele;

}

}

int stack\_del()

{

if(isempty())

{

return NULL;

}

else

{ int ele =arr[top];

top=top-1;

return ele;

}

}

int stack\_list()

{

if(isempty())

{

cout<<endl<<"stack is empty";

return NULL;

}

else

{

for(int i=1;i<=top;i++)

{

cout<<" "<<arr[i]<<" ";

}

}

}

}

menu()

{

int n,val,option;

cout<<"Enter the size of stack";

cin>>n;

stack obj(n);

do{

cout<<endl<<"=============================";

cout<<endl<<"Enter the one for ADD";

cout<<endl<<"Enter the two for DEL";

cout<<endl<<"Enter the three for list ALL";

cout<<endl<<"Enter the four for clear Screen";

cout<<endl<<"Enter the five for Exit";

cout<<endl<<"==============================";

cin>>option;

switch (option)

{

case 1:

cout<<endl<<"ADD is selecterd";

cout<<endl<<"Enter the value";

cin>>val;

obj.stack\_add(val);

break;

case 2:

cout<<endl<<"DEl is selected";

int var = obj.stack\_del();

if (var != NULL)

{

cout<<endl<<"DELETED value is"<<var;

}

else

{

cout<<endl<<"Stack is empty";

}

break;

case 3:

cout<<endl<<"list of ALL ELEMENT";

obj.stack\_list();

break;

case 4:

clrscr();

break;

case 5:

return NULL;

break;

default:

cout<<"INVALID option";

break;

}

}while(1);

}

void main()

{

clrscr();

menu();

getch();

}