```
#include<iostream>
#include<stdlib.h>

using namespace std;

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template <class T> class StackADT
{
                        int max,top;
                        T stack[10];
        public:
                        StackADT();
                        int isFull();
                        int isEmpty();
                        void push(T data);
                        T pop();
                        void showStack();
};
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template <class T> StackADT <T> :: StackADT()
{
           max=5;
           top=0;
}
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- ---------- ---------- ---------- ---------- ------------------- ---------- ---------- ---------- ---------- ---------- -
template <class T> int StackADT <T> :: isFull()
{
        if (top==max)
                                return 1;
        else
                                return 0;
}
- ---------- ---------- ---------- ---------- ------------------- ---------- ---------- ---------- ---------- ---------- -



- ---------- ---------- ---------- ---------- ------------------- ---------- ---------- ---------- ---------- ---------- -
template <class T> int StackADT <T> :: isEmpty()
{
        if (top==0)
                                return 1;
        else
                                return 0;
}
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template <class T> void StackADT <T> :: push(T data)
{
        if(isFull())
        {
                        cout << ".......Stack FULL...!!! MSG from push(T data)";
                        return;
        }
        else
        {
                        top=top+1;
                        stack[top]=data;
        }
}
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template <class T> T StackADT <T> :: pop()
{
        T pdata=-1;

        if(isEmpty())
        {
                        cout << ".......Stack EMPTY...!!! MSG from pop()";

        }
        else
        {
                        pdata=stack[top];
                        top=top-1;
        }
        return(pdata);
}
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- ---------- ---------- ---------- ---------- ------------------- ---------- ---------- ---------- ---------- ---------- -
template <class T> void StackADT <T> :: showStack()
{
        if(isEmpty())
        {
                        cout << ".......Stack EMPTY...!!! MSG from showStack()";
        }
        else
        {
                        cout << "........STACK........ ";
                        for (int i=top; i>0; --i) cout << stack[i] << " ";
        }
}
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main()
{
        int ch;
        StackADT <int> st;
        int t;
        int x;

        do
        {
            cout <<"\n1.Push \n2.Pop \n3.Display \n4.Exit \nEnter Choice ? ";
            cin >> ch;

            switch(ch)
            {
                        case 1:
                                cout <<".......Enter Data ? ";
                                cin >> x;

                                st.push(x);
                                break;

                        case 2:
                                t=st.pop();

                                if (t!=-1)
                                {
                                    cout << ".......POPPED Data = " << t;
                                }

                                break;

                        case 3:
                                st.showStack();
                                break;

                        case 4:
                                exit(0);
            }

        } while (ch!=4);

        return (0);
}
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```