**TWO STACKS IN ONE ARRAY**

**#include <stdio.h>**

**#define max 5**

**int StackArray[max];**

**int top1=-1,top22=max;**

**int push(int x, int option)**

**{**

**if (top2-top1==1)**

**{**

**printf("stack full");**

**return 0;**

**}**

**if (option==1)**

**{**

**top1++;**

**StackArray[top1]=x;**

**}**

**else**

**{**

**top2--;**

**StackArray[top2]=x;**

**}**

**printf("%d has been pushed");**

**return 1;**

**}**

**void peep(int option)**

**{**

**if(option == 1)**

**{**

**if(top1==-1)**

**printf("stack is empty");**

**else**

**printf("%d is on the top",StackArray[top1]);**

**}**

**else**

**{**

**if(top2==max)**

**printf("stack is empty");**

**else**

**printf("%d is on the top",StackArray[top2]);**

**}**

**}**

**int pop(int option)**

**{**

**if (option ==1)**

**{**

**if (top1==-1)**

**{**

**printf("stack empty");**

**return 0;**

**}**

**else**

**{**

**print("%d has been popped out.");**

**top1--;**

**return 1;**

**}**

**}**

**else**

**{**

**if (top2==max)**

**{**

**printf("stack empty");**

**return 0;**

**}**

**else**

**{**

**printf("%d has been popped out",StackArray[top2]);**

**top2++;**

**return 1;**

**}**

**}**

**}**