/\*stack using array\*/

#include<stdio.h>

#include<stdlib.h>

#define MAX 10

int top=0,stack[MAX]; //stack is strarting index=1

void push();

void pop();

void display();

int main()

{

int ch;

while(1)

{

printf("\*\*main menu\*\*\n");

printf("press 1 for push\n");

printf("press 2 for pop\n");

printf("press 3 for display\n");

printf("press 4 for exit\n");

printf("enter your choice\n");

scanf("%d",&ch);

switch(ch)

{

case 1:push();

break;

case 2:pop();

break;

case 3:display();

break;

case 4:exit(0);

default:

printf("invalid choice\n");

}

}

}

void push()

{

int item;

if(top==MAX)

{

printf("stack is full\n");

}

else

{

printf("enter the value\n");

scanf("%d",&item);

top++;

stack[top]=item;

}

printf("the value is inserted\n");

}

void pop()

{

int x; //here,item=x

if(top<1)

{

printf("stack is empty\n");

}

else

{

x=stack[top];

printf("deleted value is %d\n",x);

top--;

}

}

void display()

{

if(top<1)

{

printf("stack is empty\n");

}

else

{

printf("the stack is below\n");

for(int i=top;i>=1;i--)

{

printf("%d\n",stack[i]);

}

}

}

