```
#include<stdio.h>
#include<stdlib.h>
int *s;
int max;
int top = -1;

void create()
{
  printf("Enter the size of stack\n");
  scanf("%d",&max);

  s = (int*)malloc(max*sizeof(int));

}

int isfull()
{
   if(top==max-1)
    return 1;
   else
    return 0;

}

int isempty()
{
   if(top==-1)
    return 1;
   else
    return 0;
```

```
}
void push()
{
  int ele;

  if(isfull()==1)
    printf("Stack Overflow\n");
  else
  {
   printf("Enter the stack element to push\n");
   scanf("%d",&ele);
   s[++top] = ele;
  }

}

void pop()
{

  if(isempty()==1)
    printf("Stack Underflow\n");
  else
  {
     printf("The popped element is %d\n",s[top--]);

  }
}

void display()
{
   if(isempty()==1)
```

```
      printf("Stack Underflow\n");
   else
   {
      printf("Contents of stack are\n");

      for(int i=top;i>=0;i--)
      {
         printf("%d\n",s[i]);
      }
   }

}


void palindrome()
{
   char s[100],str[100];
   int top = -1;
   int flag = 1;

   printf("Enter a string to check palindrome\n");
   scanf("%s",str);

   for(int i=0;str[i]!='\0';i++)
      s[++top] = str[i];

   for(int i=0;str[i]!='\0';i++)
   {
      if(str[i]!=s[top--])
         flag=0;
   }
```

```
    if(flag==1)
        printf("Input string is a palindrome\n");
    else
       printf("Input string is not a palindrome\n");


}

void main()
{

    create();
    int ch;

    while(1)
    {

    printf("****** MENU FOR STACK OPERATIONS*****\n");
    printf("1->PUSH\n2->pop\n3->palindrome check\n4->display\n5->exit\n");
    printf("Enter your choice\n");
    scanf("%d",&ch);

    switch(ch)
    {
       case 1: push();
             break;
       case 2: pop();
             break;
       case 3: palindrome();
             break;
```

```
        case 4: display();
                break;
        case 5: exit(0);
        default: printf("Enter valid choice\n");
    }


    }
}
```