## DEPARTMENT OF COMPUER SCIENCE AND ENGINEERING

## WEEK-1

```
(1)Write a c program to implement stack using array.
       PROGRAM:
#include<stdio.h>
#include<conio.h>
#define max 10
int stack[max],top=-1;
void push(int x)
      if(top==max-1)
       printf("stack overflow\n");
       else
       stack[++top]=x;
}
void pop()
      int x;
       if(top==-1)
       printf("stack underflow\n");
       else
       {
              x=stack[top];
              top--;
              printf("deleted element : %d\n",x);
       }
void display()
      int i;
      if(top==-1)
       printf("stack underflow");
       else
       {
              printf("stack elements : ");
              for(i=0;i<=top;i++)
              printf("%d ",stack[i]);
       }
void main()
      int choice, ele;
       clrscr();
       do{
```

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```
printf("\n1.push\n2.pop\n3.display\n4.exit\n");
              printf("enter your choice :");
              scanf("%d",&choice);
              switch(choice)
                     case 1: printf("enter element to be pushed : ");
                            scanf("%d",&ele);
                            push(ele);
                            break;
                     case 2: pop();
                            break;
                     case 3: display();
                            break;
       }while(choice!=4);
       getch();
}
INPUT/OUTPUT:
```

```
2.pop
3.display
4.exit
enter your choice :1
enter element to be pushed : 2
 1.push
2.pop
3.display
4.exit
enter your choice :2
deleted element : 2
1.push
2.pop
3.display
4.exit
enter your choice :3
stack elements : 1
1.push
2.pon
2.pop
3.display
4.exit
enter your choice:
2.pop
3.display
 4.exit
enter your choice :1
enter element to be pushed : 1
 1.push
2.pop
3.display
 4.exit
enter your choice :1
enter element to be pushed : 2
 1.push
2.pop
3.display
4.exit
enter your choice :2
deleted element : 2
 1.push
2.pop
3.display
4.exit
 enter your choice :
```