Week2

code:

```
#include <stdio.h>


int main()
{
	int s[100],size,top=-1,check=1,c,i;
	printf("Enter size of array:\n");
	scanf("%d",&size);
	while(check==1)
	{
		printf("Select choice:\n");
		printf("1)PUSH\n2)POP\n3)DISPLAY\n4)EXIT\n");
		scanf("%d",&c);
		switch(c)
		{
			case 1: if(top==size-1)
				{
					printf("OVERFLOW!\n");
					continue;
				}
				top=top+1;
				printf("Enter item:\n");
				scanf("%d",&s[top]);
```

```
                continue;
        case 2: if(top==-1)
                {printf("Stack underflow!\n");
                continue;
                }
                top=top-1;
                continue;
        case 3: if(top==-1)
                {printf("Empty stack\n");
                  continue;
                }
                printf("Stack :\n");
                for(i=0;i<=top;i++)
                {
                        printf("%d\n",s[i]);
                }
                continue;
        case 4:check=0;
                break;
        default:printf("INVALID INPUT\n");
                continue;
    }
  }

}
```

output:

```
Enter size of array:
3
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
1
Enter item:
11
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
1
Enter item:
3
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
1
```

```
1
Enter item:
5
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
1
OVERFLOW!
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
3
Stack :
11
3
5
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
```

```
2
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
2
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
2
Select choice:
1)PUSH
2)POP
3)DISPLAY
4)EXIT
2
Stack underflow!
```