```c
#include <stdio.h>
struct Stack
{
    int arr[5];
    int tos;
};
void push(struct Stack*,int);
int pop(struct Stack *);

int main()
{
    struct Stack S;
    int i,x;
    S.tos=-1;
    for(i=1;i<=6;i++)
    {
        printf("\nEnter ele to push:");
        scanf("%d",&x);
        push(&S,x);
    }
    for(i=1;i<=6;i++)
    {
        x=pop(&S);
        if(x!=0)
         printf("\nPopped ele=%d",x);
    }
    return 0;
}
```

```c
void push(struct Stack *p,int x)
{
    if(p->tos==4)
    {
        printf("Stack Overflow");
        return;
    }
    p->tos++;
    p->arr[p->tos]=x;
    printf("\nPushed %d",x);
}
int pop(struct Stack *p)
{
    int x;
    if(p->tos==-1)
    {
        printf("\nStack Underflow");
        return 0;
    }
    x=p->arr[p->tos];
    p->tos--;
    return x;
}
```

Modify the previous code so that now your program prompts the user to select an operation amongst PUSH , POP or QUIT and then performs the desired action. Make sure that code should only terminate when the user chooses QUIT.

SAMPLE OUTPUT

```
==============
Select an opertation:
1. PUSH
2. POP
3. QUIT
Enter choice:1
Enter ele to push: 10
Pushed 10
Select an opertation:
1. PUSH
2. POP
3. QUIT
Enter choice:2
Popped 10
```

```
int main()
{
    struct Stack S;
    int choice,x;
    S.tos=-1;
    do
    {
        printf("\nSelect an operation:");
        printf("\n1.PUSH\n2.POP\n3.QUIT");
        printf("\nEnter your choice:");
        scanf("%d",&choice);
        switch(choice)
        {
        case 1:
            printf("\nEnter number to push:");
            scanf("%d",&x);
            push(&S,x);
            break;
        case 2:
            x=pop(&S);
            if(x!=0)
                printf("\nPopped ele=%d",x);
            break;
case 3:
            printf("\nThank you for using the
app!");
            break;
default:
            printf("\nInvalid choice. Try again\n");

        }
    }while(choice!=3);

    return 0;
}
```

Application Of Stack