

18/12/23

## Stack

```
1) #include <stdio.h>
```

```
#define n 5
```

```
int Stack[n];
```

```
int top = -1;
```

```
void push();
```

```
void pop();
```

```
void display();
```

```
void push()
```

```
{
```

```
    if (top >= n)
```

```
    {
```

```
        printf("Stack is overflow");
```

```
    }
```

```
    else
```

```
    {
```

```
        int x;
```

```
        printf("Enter the element:");
```

```
        scanf("%d", &x);
```

```
        top++;
```

```
        printf("Enter
```

```
        Stack[top] = x
```

```
    }
```

```
}
```

```
void Pop()
```

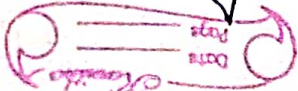
```
{
```

```
    if (top == -1)
```

```
    {
```

```
        printf("Stack is underflow");
```

```
    }
```



```
else  
{
```

```
    int item;  
    printf("Enter the element to pop:");  
    scanf("%d", &item);  
    printf("Element deleted is %d\n", item);  
    top--;
```

```
}
```

```
}
```

```
void display()
```

```
{
```

```
    if (top == -1)
```

```
    {
```

```
        printf("Stack is empty:");
```

```
    }
```

```
else
```

```
{
```

```
    printf("The element in the Stack are:\n");  
    for (i = top; i >= 0; i--)
```

```
    {
```

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

```
    }
```

```
}
```

```
}
```

```
int main()
```

```
{
```

```
    while (1)
```

```
    {
```

```
        int choice;
```



```

print("1. push | 2. pop | 3. display");
print("Enter the choice");
scanf("%d", &choice);

```

```

switch(choice)
{

```

```

    case 1: push();
            break;

```

```

    case 2: pop();
            break;

```

```

    case 3: display();
            break;

```

```

    default: print("Invalid choice");

```

```

}

```

```

}

```

```

}

```

Output:

1. push

2. Pop

3. display

Enter the choice: 1

Enter the element: 3

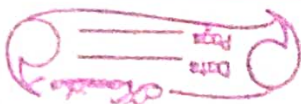
1. Push

2. Pop

3. display

Enter the choice: 2

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Enter the element to be popped = 3

Enter the Element : 3

1. Push

2. Pop

3. display

Enter The choice : 3

Enter the element in the Stack.

1. Push

2. POP

3. display

Enter the choice : 2

Enter The element to be popped : 3