

```
Print("*****Stack*****")
```

```
Class CustomStack:
```

```
    Elements = []
```

```
    Def __init__(self):
```

```
        Self.container = []
```

```
    Def push(self, item):
```

```
        Self.container = [item] + self.container
```

```
    Def pop(self):
```

```
        Return self.container.pop(0)
```

```
Stack_instance = CustomStack()
```

```
Stack_instance.push(20)
```

```
Stack_instance.push(30)
```

```
Stack_instance.push(40)
```

```
Stack_instance.push(50)
```

```
Print(stack_instance.container)
```

```
Stack_instance.pop()
```

```
Print(stack_instance.container)
```

```
Print("*****Queue*****")
```

```
Class CustomQueue:
```

```
    Elements = []
```

```
    Def __init__(self):
```

```
Self.container = []
```

```
Def enqueue(self, item):
```

```
    Self.container = self.container + [item]
```

```
Def dequeue(self):
```

```
    Return self.container.pop(0)
```

```
Queue_instance = CustomQueue()
```

```
Queue_instance.enqueue(20)
```

```
Queue_instance.enqueue(30)
```

```
Queue_instance.enqueue(40)
```

```
Queue_instance.enqueue(50)
```

```
Print(queue_instance.container)
```

```
Queue_instance.dequeue()
```

```
Print(queue_instance.container)
```

```
Print("*****Binary Search Algorithm*****")
```

```
Data = [6, 12, 17, 23, 38, 45, 77, 84, 90]
```

```
Search_target = 45
```

```
Low = 0
```

```
High = len(data) - 1
```

```
Found = False
```

```
While low <= high:
```

```
    Middle = int((low + high) / 2)
```

```
    If data[middle] == search_target:
```

```
        Found = True
```

Break

Elif data[middle] < search_target:

Low = middle + 1

Else:

High = middle - 1

If found:

Print("Target found Successfully!")

Else:

Print("Target not found!")