

## Experiment No : 2

```
customer_ids=[401,402,403,404,405,406,407]
```

```
def linear_search(ids,key):
    print("\n linear search")
    for i in range(len(ids)):
        if ids[i]==key:
            print(f"customer id {key} found at position {i+1}.")
            return True
    print(f"customer id {key} not found")
    return False
```

```
def binary_search(ids,key):
    print("\n binary search")
    low=0
    high=len(ids)-1

    while low<=high:
        mid=(low+high)//2
        if ids[mid]==key:
            print(f"customer id {key} found at position {mid+1}.")
            return True
        elif key<ids[mid]:
            high=mid-1
```

```
else:  
    low=mid+1  
  
print(f"customer id {key} not found")  
return False  
  
print("customer account id:",customer_ids)  
key=int(input("Enter a customer id to search:"))  
  
linear_search(customer_ids,key)  
binary_search(customer_ids,key)
```