Python File

Experiment-7

Aim: Program to find maximum from list of numbers

Source code:

```
list1=[10,24,7,54,34,76,21]
print("Maximum number:",max(list1)) #using in-built method
maxn=0
for i in list1: #using loops
   if(i>maxn):
      maxn=i
print("Maximum number:",max(list1))
```

Output

```
Maximum number: 76
Maximum number: 76
```

Python File

Experiment-8

Aim: Python Program to perform Linear Search

Source code:

```
def search(list,n):
    for i in range(len(list)):
        if list[i] == n:
            return True
    return False
list = [1, 2, 'goeduhub', 4,'python','machine learning',6]
n = 'python'  # to be searched
if search(list, n):
    print("Found at index ",list.index(n))
else:
    print("Not Found")
```

Output:

Found at index 4

Python File

Experiment-9

Aim: Python Program to perform binary search

Source code:

```
def binarySearch(arr,beg,end,item):
   if end >= beg:
      mid = int((beg+end)/2)
      if arr[mid] == item :
         return mid+1
      elif arr[mid] < item :
         return binarySearch(arr,mid+1,end,item)
      else:
         return binarySearch(arr,beg,mid-1,item)
   return -1
a=input("Enter elements :")
b=a.split(",")
arr=[]
for i in b:
   arr.append(int(i))
arr.sort()
print("Sorted list:",arr)
item = int(input("Enter the item which you want to search:"))
location = -1;
```