

#Lab 3 Implementation of Height, Core, Boundary and Support

```
A={}
n=int(input("Enter the number of elements in set"))
for i in range(n):
    name=input("Enter the name: ")
    value=float(input("Enter the value: "))
    if(value>=0 and value<=1):
        A[name]=value
    else:
        print("Value must be >= 0 and <=1")

all_values = A.values()
max_value = max(all_values)
print("The height of set A is:",max_value)
```

```
support=[]
for A_key in A:
    A_value = A[A_key]
    if A_value>0:
        support.append(A_key)
print("The support of set A is:",support);
```

```
core=[]
for A_key in A:
    A_value = A[A_key]
    if A_value==1:
        core.append(A_key)
print("The core of set A is:",core)
```

```
b=[]
for A_key in A:
    A_value = A[A_key]
    if A_value<1 and A_value>0:
        b.append(A_key)
print("The border of set A is:",b)
```

Output

```
Enter the number of elements in set4
Enter the name: a
Enter the value: 0.3
Enter the name: b
Enter the value: 0.5
Enter the name: c
Enter the value: 1
Enter the name: d
Enter the value: 0.7
```

The height of set A is: 1.0
The support of set A is: ['a', 'b', 'c', 'd']
The core of set A is: ['c']
The border of set A is: ['a', 'b', 'd']