

## Q2\_sets

October 12, 2023

```
[ ]: a={1,2,3,4,5,6,7,8,9,10}
      b={1,4,2,6,7,4,2,8,3,1,22}
      print(a)
      print(b)
```

{1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

{1, 2, 3, 4, 6, 7, 8, 22}

1. Printing on the unique elements of both sets

```
[ ]: inter=a.intersection(b)
      un=a.union(b)
      unique=un.difference(inter)
      print("Unique elements of both sets are ",unique)
```

Unique elements of both sets are {9, 10, 5, 22}

2. Set of elements present in A or B

```
[ ]: print("Elements present in only A ",a.difference(b))
      print("Elements present in only B ",b.difference(a))
```

Elements present in only A {9, 10, 5}

Elements present in only B {22}

3. common elements in both sets

```
[ ]: print("Common elements in both sets are ", a.intersection(b))
```

Common elements in both sets are {1, 2, 3, 4, 6, 7, 8}

4. adding elements of A to B without the common items

```
[ ]: difflist=list(a.difference(b))
      c=b.copy()
      b.update(difflist)
      print("Set B after adding elements of A which are not common to A ",b)
```

Set B after adding elements of A which are not common to A {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 22}

5. Creating list from set A & B

```
[ ]: b=c.copy()
alist=list(a)
blist=list(b)
print("set A in list", alist)
print("set B in list", blist)
alist.extend(blist)
print("Set A and B together in list",alist)
```

set A in list [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

set B in list [1, 2, 3, 4, 6, 7, 8, 22]

Set A and B together in list [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 1, 2, 3, 4, 6, 7, 8, 22]