Python Set {}

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# unordered collection of various items enclosed within the curly braces.

# The elements of the set can not be duplicate.

# The elements of the python set must be mutable.

# no index attached to the elements of the set, we cannot

# directly access any element of the set by the index.

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Days = {"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"}

print("The set is:\n",Days)

print(type(Days))

print("looping through the set elements ... ")

for i in Days:

print(i)

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set1 = {1,2,3,44,5,6}

print("The set is: ",set1) #

print(type(set1))

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Converting list into set

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list1 = [2,3,4,1,5,1,2,3,4,5]

print("The list is: ",list1)

print("--------------"\*4)

print("converting list into set.")

set2 = set(list1)

print("The set is: ",set2)

print("--------------"\*4)

print("Adding elements to the set")

set2.add(23) # adding single elements

print("Updated set is: ",set2)

print("--------------"\*4)

print("Adding multiple values to the set.")

set2.update([12,13,14]) # adding multiple elements

print("Updated set is: ",set2)

print("--------------"\*4)

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print("Converting a list to set")

number = set(["One","Two","Three"])

print(number)

print(type(number))

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number = {'Two', 'Three', 'One'}

print("The set is: ",number)

print("Adding elements to the set")

number.add("Five")

number.add("Seven")

print("--------------"\*4)

print("Adding multiple elements using Update()")

number.update(["Six","Eight","Nine"])

print(number)

print("--------------"\*4)

print("removing the Elements using 'discard()'")

number.discard("Eight")

print(number)

print("--------------"\*4)

print("removing the Elements using 'remove()'")

number.remove("Nine")

print(number)

print("--------------"\*4)

print("Removing all the items from the set...")

number.clear()

print(number)

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# Adding multiple elements to the set

set1 = {1,2,3,3,99,6,44,81,2,3,1}

print("The set is: ",set1)

set1.update({77,54,65,33})

print("The modified set is: ",set1)

print("--------------------"\*4)

set1.discard(3)

print("The modified set after discard(): ",set1)

print("--------------------"\*4)

set1.discard(100)

print("The modified set after discard(): ",set1)

print("--------------------"\*4)

set1.remove(2)

print("The modified set after remove(): ",set1)

# set1.remove(100)

# print(set1)

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# Adding multiple elements to the set

set1 = {1,2,3,3,99,6,44,81,2,3,1}

print("The set is: ",set1)

set1.update({77,54,65,33})

print("The modified set is: ",set1)

print("--------------------"\*4)

set1.pop()

print("The modified set after pop(): ",set1)

print("--------------------"\*4)

set1.discard(99)

print("The modified set after discard(): ",set1)

print("--------------------"\*4)

set1.pop()

print("The modified set after pop(): ",set1)

print("--------------------"\*4)

set1.pop()

print("The modified set after pop(): ",set1)

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day1 = {"One","Two","Three","Four"}

day2 = {"Five","Six","Seven"}

print("Day1 set: ",day1)

print("Day2 set: ",day2)

print("------------------"\*4)

# Union of the both the sets

print("Union of Day1 and Day2")

print("day1|day2 :\n ",day1|day2)

print("------------------"\*4)

print("day1.union(day2) :\n ",day1.union(day2))

print("------------------"\*4)

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day1 = {"One","Two","Three","Six","Four"}

day2 = {"Five","One","Six","Seven","Two"}

print("Day1 set: ",day1)

print("Day2 set: ",day2)

print("------------------"\*4)

#Intersection of two sets

print("day1&day2 : ",day1&day2)

print("day1.intersection(day2): ",day1.intersection(day2)) # printing intersection

print("------------------"\*4)

#Prints only the intersection elements

day1 = {"One","Two","Three","Six","Four"}

print("Day1 set: ",day1)

print("Day2 set: ",day2)

print("------------------"\*4)

print("Set intersection using intersection\_update()")

day1.intersection\_update(day1,day2)

print("Updated set after intersection: ",day1)

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set1 = {'one','four','three','nine',26}

set2 = {'five','one','three','four','six'}

print("Set1 :",set1)

print("Set2 :",set2)

print("------------------"\*4)

print("Union of set1 and set2: ")

print("Union: ",set1|set2)

print("union : ",set1.union(set2))

print("------------------"\*4)

print("Intersection of set1 and set2:")

print('Intersection :',set1&set2)

print('Intersection :',set1.intersection(set2))

print("------------------"\*4)

print("Difference of set1 and set2:")

print('difference set1-set2: ',set1-set2)

print('difference set2-set1: ',set2.difference(set1))

print("------------------"\*4)

print("Symmetric difference of set1 and set2:")

print('Symmetric\_difference set1-set2: ',set1^set2)

print('Symmetric\_difference set2-set1: ',set2.symmetric\_difference(set1))

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set1 = frozenset({'one','four','three','nine',26,'one',26})

print(set1)

print(type(set1))

set2 = frozenset({32,44,3,'one',26})

print(set2)

print(type(set2))

print(set1|set2)

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1.Create a set of different products,add some more elements

to it and print it.

2.given 2 different sets, access the elements from the set

and print all elements from both set.

3.given 2 different sets, create a 3rd set which is having all

common elements from set1 and set2.

4.given 2 different sets, create a 3rd set with elements which

are from set1 but not in set2.

5.create a immutable set that holds primary key column values

from employee table

6.Given a set with some elements.Add a tuple to this set.