

01-jj

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1.LIST Write a PYTHON script with List comprehension for the following • Is the given list divisible by 3 or NOT?

```
[ ]: randList = []
      [randList.append(i) for i in range(2, 15)]
      print("random List : ",randList)
      divisibleList = []
      [divisibleList.append(num) if (num % 3 == 0) else [] for num in randList]
      print("numbers divisible by 3 are : ", divisibleList)
```

random List : [2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14]

numbers divisible by 3 are : [3, 6, 9, 12]

- Square of even numbers in a list

```
[ ]: randList = []
      [randList.append(i) for i in range(2, 15)]
      print("Sample List : ",randList)
      squares = []
      [squares.append(x**2) for x in randList]
      print("List of squares", squares)
```

Sample List : [2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14]

List of squares [4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196]

- Sum of digits of all EVEN numbers in a list

```
[ ]: randList = []
      [randList.append(i) for i in range(2, 15)]
      evenList = []
      [evenList.append(i) if (i % 2 == 0) else [] for i in randList]
      print("Even List : ", evenList)
      sum = 0
      [sum := sum+i for i in evenList]
      print("Sum of evenlist : ", sum)
```

Even List : [2, 4, 6, 8, 10, 12, 14]

Sum of evenlist : 56

- Remove duplicate numbers in a list

```
[ ]: reapList = [1, 5, 57, 0, 7, 7]
      print("List with duplicate values : ", reapList)
      print("Sorted List : ", sorted(list(set(reapList))))
```

List with duplicate values : [1, 5, 57, 0, 7, 7]
Sorted List : [0, 1, 5, 7, 57]

2.Dictionary Create a dictionary to store the details of your user details (name as key and user-type as value). users = {"bob": "admin", "rob": "user 2FA", "jack": "user", "jim": "user"}

```
[ ]: users = {"bob": "admin", "rob": "user 2FA", "jack":
              "user", "jim": "user"}
      print("Users on the platform :", users)
      def userType(name):
          print(name, "is a :", users.get(name))

      userType("bob")
```

Users on the platform : {'bob': 'admin', 'rob': 'user 2FA', 'jack': 'user',
'jim': 'user'}
bob is a : admin