

## COURSE CONTENT

## SESSIONS

## • DEMO SESSION

## • SESSION 1

## FEATURES

1) Given a two list. Create a third list by picking an odd-index element fr list and even index elements from second.

Input:

```
listOne = [3, 6, 9, 12, 15, 18, 21]
```

```
listTwo = [4, 8, 12, 16, 20, 24, 28]
```

Output:

```
[6, 12, 18, 4, 12, 20, 28]
```

2) Given a list slice it into a 3 equal chunks and reverse each list

Input:

```
sampleList = [11, 45, 8, 23, 14, 12, 78, 45, 89]
```

Output:

```
[8, 45, 11]
```

```
[12, 14, 23]
```

```
[89, 45, 78]
```

3) Given a list iterate it and count the occurrence of each element and c dictionary to show the count of each element

```
Original list [11, 45, 8, 11, 23, 45, 23, 45, 89]
```

```
Printing count of each item {11: 2, 45: 3, 8: 1, 23: 2, 89: 1}
```

[Type here]

4) Given a two list of equal size create a set such that it shows the elem both lists in the pair

First List [2, 3, 4, 5, 6, 7, 8]

Second List [4, 9, 16, 25, 36, 49, 64]

Result is {(6, 36), (8, 64), (4, 16), (5, 25), (3, 9), (7, 49), (2, 4)}

5) Iterate a given list and Check if a given element already exists in a di a key's value if not delete it from the list

Input :

rollNumber = [47, 64, 69, 37, 76, 83, 95, 97]

sampleDict ={'Jhon':47, 'Emma':69, 'Kelly':76, 'Jason':97}

Output:

[47, 69, 76, 97]

6) Given a dictionary get all values from the dictionary and add it in a lis add duplicates

Input:

speed ={'jan':47, 'feb':52, 'march':47, 'April':44, 'May':52, 'June':53, 'july':54, 'Sept':54}

Output:

[Type here]

```
[47, 52, 44, 53, 54]
```

7) Remove duplicate from a list and create a tuple and find the minimum and maximum number

Input:

```
sampleList = [87, 45, 41, 65, 94, 41, 99, 94]
```

Output:

```
unique items [87, 45, 41, 65, 99]
```

```
tuple (87, 45, 41, 65, 99)
```

```
min: 41
```

```
max: 99
```

8) You are given a list of integers. Your task is to do the following:

1) Replace all integers that are evenly divisible by 3 with "fizz"

2) Replace all integers divisible by 5 with "buzz"

3) Replace all integers divisible by both 3 and 5 with "fizzbuzz"

Input: numbers = [45, 22, 14, 65, 97, 72]

9) Sort the following list of complex data type in ascending order of age of animals

Input: animals = [ {'type': 'penguin', 'name': 'Stephanie', 'age': 8},

```
                    {'type': 'elephant', 'name': 'Devon', 'age': 3},
```

```
                    {'type': 'puma', 'name': 'Moe', 'age': 5} ]
```

[Type here]

10) You have a function named `get_random_word()`. It will always return a random selection from a small set of words:

```
import random

all_words = "all the words in the world".split()

def get_random_word():

    return random.choice(all_words)
```

Write a function `get_unique_words()` which repeatedly calls `get_random_word()` 1000 random words and then return a data structure containing every unique word.

11) Given a dictionary `cowboy` .

```
cowboy = {'age': 32, 'horse': 'mustang', 'hat_size': 'large'}
```

Write a code to get the 'name' of cowboy. If key is absent, set `cowboy['name']` to 'Man with No Name' and return the new value.

12) Write a program that reads integers from the user and stores them in a list. The program should continue reading values until the user enters 0. Then it should display all of the values entered by the user (except for the 0) in order from smallest to largest, with one value appearing on each line. Use either the `sort` method or the `sorted` function to sort the list.

13) Create a program that reads integers from the user until a blank line is entered. Once all of the integers have been read your program should display all of the negative numbers, followed by all of the zeros, followed by all of the positive numbers. In each group the numbers should be displayed in the same order that they were entered by the user. For example, if the user enters the values 3, -4, 1, 0, -1, 0, and 2, the program should output the values -4, -1, -2, 0, 0, 3, and 1. Your program should display each value on its own line.

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