- 1. Python Program to Find the Largest Number in a List
- 2. Python Program to Find the Second Largest Number in a List
- 3. Python Program to Put Even and Odd elements in a List into Two Different Lists.
- 4. Python Program to check whether two lists are same.
- 5. Python Program to Find the Union of Lists.
- 6. Python Program to Find the Intersection of Lists.
- 7. Python Program to find union and intersection of lists without repetition.
- 8. Python Program to Create a List of Tuples with the First Element as the Number and Second Element as the Square of the Number.
- 9. Python Program to Remove the Duplicate Items from a List.
- 10. Python Program to Read a List of Words and Return the Length of the Longest One.
- 1. Python Program to Add a Key-Value Pair to the Dictionary
- 2. Python Program to Concatenate Two Dictionaries Into One
- 3. Python Program to Check if a Given Key Exists in a Dictionary or Not
- 4. Python Program to Generate a Dictionary that Contains Numbers (between 1 and n) in the Form (x,x\*x).
- 5. Python Program to Sum All the Items in a Dictionary
- 6. Python Program to Multiply All the Items in a Dictionary
- 7. Python Program to Remove the Given Key from a Dictionary
- 8. Write a function is\_empty(my\_dict) that takes a dictionary my\_dict and returns True if my\_dict is empty and False otherwise.
- 9. Write a function make\_dict(key\_value\_list) that takes a list of tuples key\_value\_list where each tuple is of the form (key, value) and returns a dictionary with these keys and corresponding values.
- 10. A simple substitution cipher is an encryption scheme where each letter in an alphabet to replaced by a different letter in the same alphabet with the restriction that each letter's replacement is unique. The template for this question contains an example of a substitution cipher represented a dictionary CIPHER\_DICTIONARY. Your task is to write a function encrypt(phrase,cipher\_dict) that takes a string phrase and a dictionary cipher\_dict and returns the results of replacing each character in phrase by its corresponding value in cipher\_dict.

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CIPHER_DICT = {'e': 'u', 'b': 's', 'k': 'x', 'u': 'q', 'y': 'c', 'm': 'w', 'o': 'y', 'g': 'f', 'a': 'm', 'x': 'j', 'l': 'n', 's': 'o', 'r': 'g', 'i': 'i', 'j': 'z', 'c': 'k', 'f': 'p', ' ': 'b', 'q': 'r', 'z': 'e', 'p': 'v', 'v': 'l', 'h': 'h', 'd': 'd', 'n': 'a', 't': '', 'w': 't'}
```

encrypt("cat", CIPHER\_DICT) should return "km "

11. Write a function make\_cipher\_dict(alphabet) that takes a string of unique characters and returns a randomly-generated cipher dictionary for the characters in alphabet . You should use

- the shuffle() method in the random module to ensure that your returned cipher dictionary is random.
- 12. Write a python code to generate grade using dictionary. Dictionary should have student names as keys (assuming names are unique) and subject\_name and mark as value. There are 5 subjects for each student. Marks should be converted to grades (90 100 A+, 80-89 A etc).