1. Write a Python script to generate and print a dictionary that contains a number (between 1 and n) in the form (x, x\*x).

Sample Dictionary ( n = 5) :  
Expected Output : {1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

1. Write a Python program to accept and create 2 dictionaries and combine two dictionary adding values for common keys.

d1 = {'a': 100, 'b': 200, 'c':300}  
d2 = {'a': 300, 'b': 200, 'd':400}  
Sample output: Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})

1. Write a Python program to create a dictionary from a string.    
   Note: Track the count of the letters from the string.  
   Sample string : 'w3resource'  
   Expected output: {'w': 1, '3': 1, 'r': 2, 'e': 2, 's': 1, 'o': 1, 'u': 1, 'c': 1}
2. Write a Python program to filter a dictionary based on values.  
   Original Dictionary:  
   {'Cierra Vega': 175, 'Alden Cantrell': 180, 'Kierra Gentry': 165, 'Pierre Cox': 190}  
   Marks greater than 170:  
   {'Cierra Vega': 175, 'Alden Cantrell': 180, 'Pierre Cox': 190}
3. Accept input to create a dictionary like this :

Student={11a:{1:’Pranav’, 2:’Dhruv’, 3:’Prad’, 4: ‘Preryth’},11b:{1:’Riya’, 2:Anika’, 3:’Hamsika’, 4: ‘Srinidhi’}}

1. Given a dictionary with values as tuples, the task is to write a python program to find the key of maximum value tuples.

**Input :** test\_dict = {‘gfg’ : (“a”, 3), ‘is’ : (“c”, 9), ‘best’ : (“k”, 10), ‘for’ : (“p”, 11), ‘geeks’ : (‘m’, 2)}

**Output :** for

1. We have following information on Employees and their Salary (Salary is in lakhs),

|  |  |
| --- | --- |
| **Employee** | **Salary** |
| John | 14 |
| Smith | 13 |
| Alice | 32 |
| Daniel | 21 |

1. Using above create a dictionary of Employees and their Salary
2. Write a program that asks user for three type of inputs,
   1. **print:** if user enter print then it should print all Employees with their Salary in this format,
      1. John ==>14
      2. Smith ==>13
      3. Alice ==>32
      4. Daniel ==>21
   2. **add:** if user input adds then it should further ask for an Employee name to add. If Employee already exists in our dataset then it should print that it exists and do nothing. If it doesn't then it asks for Salary and add that new Employee/Salary in our dictionary and print it
   3. **remove:** when user inputs remove it should ask for an Employee to remove. If an Employee exists in our dictionary then remove it and print a new dictionary using format shown above in (a). Else print that Employee doesn't exist!
   4. **query:** on this again ask the user for which Employee he or she wants to query. When a user inputs that Employee it will print the Salary of that Employee.

**(should give message if employees not in list)**

1. Marks of 3 students in 3 subjects are available. Name1={1:30,2:40,3:25} Create a nested dictionary that stores the marks details alongwith student names and print the output as:

Subject 1 subject 2 subject 3

NAme1

Name 2

Name 3

1. Consider a dictionary myp with single-letter keys, each followed by a 2-element tuple representing the coordinates of a point in an x-y plane. WAP to print the max value from within all of the values tuples at the same index

myp={‘a’:(4,3), ‘b’:(1,2), ‘c’:(5,1)}

Print the result as max value at index(myp,0)=5

Print the result as max value at index(myp,1)=3

1. For a class representative post 3 students a,b,c are candidates:

Accept the votes for 20 students and give the total votes won by a,b,c

1. Repeatedly ask the user to enter a team name and how many games the team has won and lost. Create a menu driven program
2. Choose team name and print its winning percentage
3. Print the team name with maximum wins
4. Print the team name with maximum losses
5. Input number of brands. Store the details as
6. (“Amul”:{‘Bread’:50,’Cheese’:100, ‘Iceream’:200}
7. Menu driven program to print brand when the use enters a product
8. Print the bill when the user buys a few products brand,item,qty of each to be accept as input
9. Write a python program store Birthdays of your n-friends (n from user) as a dictionary BD with key as name and value DOB as a nested dictionary containing {dd:XX,mm:XX,yyyy:XXXX}. Write a menu driven program to perform the given operations Display name of your friends celebrating birthday in a given month For a given name of a friend display the DOB
10. Write a python program to store the information of customers (name, accno, balance, acctype) of a bank in the dictionary, Accno as key and other info a list. Acctype is the account type like saving or current.

Write a menu driven program to perform the given operations.

• Add a new customer

• Show a particular customer

• Show all the customers

• Withdraw money Its mandatory to maintain a bal\_amt of 1000 Rs.

• Deposit Money. • Delete a customer

1. Write a python program store user information in a dictionary contains UserId as Key and password as Value. Write a menu driven program to perform the given operations.

• SignUP - Add a ID - A CAPTCHA of 4 characters to be created randomly and verified. On successful entry, user should be allowed to create an ID

• Login – Three chances of matching to be given. After 3 attempts, should display an error message. On successful attempt, should dsplay “Successful login”

• Exit to come out the menu

1. Write a python program store country information in a dictionary contains country name as key and capital, currency name and currency value (Equivalent to US $) as a list.

Write a menu driven program to perform the given operations Display the countries in sorted order of the currency value(using bubble sort) in tabular form For given name of the country display the details

1. Write a python program to store the names and the marks scored by few students(n, input n from user) of the class in the following subjects (English, Math, Physics, Chemistry, CompSc)in a dictionary as shown:- Data= {'Ram':{'English':78, 'Math':97, 'Physics':86, 'Chemistry':92, 'CompSc':95},'Arun':{'English':81, 'Math':76, 'Physics':65, 'Chemistry':72,'CompSc':85}}

• Display the name of three topper based on the total.

• Display the highest marks in each subject and the name of the student who scored it.