1) Write a python script to assign two string values of multiple words. Find out and print which words are common in both strings.

2) Write a python script to take any number of 10 digits as command-line argument and find the addition of all even digits and the multiplication of all odd digits.

For example:

Input: 8775258553

Output: Addition : 8 + 2 =10

           Multiplication: 7 * 5 * 3 =105

3) Write a python script to take a mobile number in full format(+880-XXX-XXX-XXXX) and an email address from command-line arguments. Print the mobile operator name based on the provided phone number and, print the username and domain name of the email address. If the provided email address is hotmail address then print a message for the user that this email address is not acceptable.

***Note: You must validate the mobile number and email address using regular expression for this assignment. You can use 're' module of python for this.**

Suppose the filename is user.py

Example-1:

Input:

user.py +880-171-305-6070 user@hotmail.com

Output:

It is grameen number.

Hotmail is not acceptable.

Example-2:

Input:

user.py +880-181-305-6070 fahmida@gmail.com

Output:

It is robi number.

username: fahmida

domain name: gmail.com

4) **Write a python script to assign two string values of multiple words. Find out and print which characters are common in both strings.**

5) **Write a python script to define a dictionary of 10 elements where the key contains the name of the student and the corresponding value contains the marks. Print the name of the students who achieved highest mark and who achieved lowest mark. After completing the task, print how many percentage of students achieved 80 or more and less than 40 marks.**

Example:

Suppose the marks are like below.

75, 70, 90, 38, 79, 80, 35, 82, 83, 40

Output:

Highest Mark: shaon (90)

Lowest Mark: evan (35)

40% students achieved 80 or more

20% students are failed

6) **Create a class in Python named Student with a constructor that contains two parameters (ID, name), and a method named Result that will publish the student's ID, Name and CGPA.**

Suppose, CGPA based on ID are given below.

011147477 3.02

011113437 3.56

011112323 3.98

If none of the id is provided after running the script then print the message, "ID is not found".

7) Write a python script to declare a list of 10 numbers and print the list after removing all odd numbers.

8) Write a python script to declare a list of 5 numbers with duplicates and print the list after removing the duplicate numbers.

9) Write a python script to take an input as password. Check and print "The password is valid" based on following criteria, otherwise print "invalid password".

   A. Minimum 8 character long.

   B. Must contains a special character.

   C. Minimum one capital letter, small letter and a number.

10) Write a python script to search a particular word in a text file and display how many times that word appeared in the file and the location of the word.

11) Create an HTML form to take a filename from the user that contains customer information. Read all customers details from the file and print the sorted customer information based on name into the browser in tabular form using python script and HTML.

Sample file:

customer.txt

ID	Name	Email	Phone
609	Ali	ali@gmail.com	019863636363
......	......	....	.....

12) Create a class in Python named Student with a constructor that contains two parameters (ID, name), and a method named Result that will publish the student's ID, Name and CGPA.

Suppose, CGPA based on ID are given below.

011147477   3.02

011113437   3.56

011112323   3.98

If none of the id is provided after running the script then print the message, "ID is not found".

13) **Create a class in Python named Student with a constructor that contains two parameters (ID, name), and a method named Result that will publish the student's ID, Name and CGPA.**

Suppose, CGPA based on ID are given below.

test.txt

011147477   3.02

011113437   3.56

011112323   3.98

If none of the id is provided after running the script then print the message, "ID is not found".

14) **Write a python script to create a class named product that has a constructor to initialize the product ID and a method named search_product that will search the product name, type and price based on the ID from products.txt file and print the values.**

Suppose, products.txt contains the following values.

ID	Name	Type	Price
3423	Samsung HDD 1TB	HDD	6000
7856	Logitech Mouse	Mouse	500
9856	Dell Monitor 15"	Monitor	4500

15) Write a python script to create a class named product that has a constructor to initialize the product ID and a method named search_product that will search the product name, type and price from products.txt file where the price is more than 4000 and type is monitor and print the values.

Suppose, products.txt contains the following values.

ID	Name	Type	Price
3423	Samsung HDD 1TB	HDD	6000
7856	Logitech Mouse	Mouse	500
9856	Dell Monitor 15"	Monitor	4500
3420	HP HDD 1TB	HDD	6500
9851	Samsung Monitor 15"	Monitor	6000

16) Create a HTML form to take book name, author name and price from the user and print the book name, author name and the price after 15% discount into the browser.

17) A. Write a python script to take your birth year as input and find out how many years, months, weeks and days are passed. Don't use any built-in function to solve the problem. [25]

B. After completing the problem-A, find out your birth year is leap year or not. [10]

18) Write a Python script to read a text file of phone numbers in international format. Display the name of the country based on each phone number. Must use function with argument to do the task. [You have to write the code for at least three countries]

19) Write a python script to create a class named student that has a constructor to initialize the student name, course code and marks and a method named grade() that will calculate the grade based on the marks and print the students name, course code and grade values.

20) Write a Python script to read a text file and print those lines of that file that contains the word 'Java'.

21) Write a Python script using loop to display the following output: 2, 8, 512, 134217728

22) A. Write a python script to define a list of 10 number where the value can be positive, negative and zero. Find out the prime numbers from the list items and store the values in a new list. Print the new list. [25]

B. After completing the problem-A, find out the average of all negative numbers of the main list.[10]

23) A. Write a python script to take two string values as commandline arguments and compare the characters of both strings and print which characters are common in both strings. You have to define the function to do the compare task. [25]

B. After completing the problem-A, take a string of the length of common characters and replace the common characters from the second string by the input value. [10]

24) Write a python script to define an dictionary of 10 elements where the key contains the name of the client and the corresponding value contains the balance. Print the name of the clients who has highest balance and who has lowest balance.

25) A. Write a bash script to take a string input that defines number in words where the number value must be minimum three digits and print the number value after converting the string value into the number.
For Example:
Input: Three hundreds forty five
Output: 345

B. After completing the problem-A, print the sum of the numbers.
Output: 12

26) Create an HTML form with a field to take the employee post. Search and print the details of those employees of that post and count how many employees of that post exist in employee.txt file. The fields of the employee.txt file are given below.

Name department post email phone
...   .

27) **A. Write a python script to take any number of 10 digits as input and find the occurrence of each digit in the number. [25]**

For example:
Input: 8775558557
Output:
8 - 2 times
7 - 3 times
5 - 5 times

B. After solving the problem-A, print how many even digits exist in the input. [10]