
Problem 1: Common Friends (Set Operations)

Problem:
Given two sets of friends from two people, find the **mutual friends**, **unique friends of each**, and the **total number of unique friends**.

Example Input:

```
a_friends = {"Rahim", "Karim", "Sakib", "Jamal"}
b_friends = {"Sakib", "Jamal", "Rafiq", "Nadim"}
```

Expected Output:

```
Mutual friends: {'Sakib', 'Jamal'}
Unique to A: {'Rahim', 'Karim'}
Unique to B: {'Rafiq', 'Nadim'}
Total unique friends: 6
```

Problem 2: Sort Students by Marks (Tuple + Dictionary)

Problem:
You are given a list of tuples — each containing a student's name and mark.
Sort them in descending order of marks and print the top 3 scorers.

Example Input:

```
students = [("Rafi", 89), ("Sumi", 95), ("Hasan", 90), ("Nila", 75),
("Anik", 98)]
```

Expected Output:

```
Top 3 students:
Anik - 98
Sumi - 95
Hasan - 90
```

Problem 3: Word Length Filter (Lambda + Filter)

Problem:
Given a list of words, use **filter()** and **lambda** to return only words whose length is **greater than 4**.
Example Input:

```
words = ["sun", "planet", "moon", "star", "universe"]
```

Expected Output:

```
['planet', 'universe']
```

Problem 4: Square of Even Numbers (Map + Filter + Lambda)

Problem:
Write a one-line Python expression using **map()**, **filter()**, and **lambda** that takes a list of integers and returns the squares of even numbers only.

Example Input:

```
nums = [1, 2, 3, 4, 5, 6]
```

Expected Output:

```
[4, 16, 36]
```

Problem 5: Write and Read a File

Problem:
Write a Python program to:

1. Create a text file named `data.txt`
2. Write “Learning Python is fun!” into it.
3. Read the file and print its content.

Problem 6: Count Lines in a File

Problem:

Write a Python program to count how many lines are in a text file named `story.txt`.

If the file does not exist, handle the exception and print an error message, otherwise read the text file (test it with both conditions). Print a message finally.