



## Python Data Structure Case Study

### Scenario:

You are working on a project where you need to analyze the social media activity of users. Each user's activity is represented as a list of posts, where each post contains a timestamp and a message. You want to create a program that can quickly retrieve the most recent post from each user and also identify the most active user based on the number of posts they make.

### Data Structure Requirements:

1. You need to store each user's posts efficiently.
2. You need to quickly access the most recent post for each user.
3. You need to determine the user with the highest number of posts.

### Question:

How would you design and implement the data structure to meet these requirements in Python? Describe your approach and provide sample code to demonstrate how you would handle the following:

1. Storing and updating posts for multiple users.
2. Retrieving the most recent post for a specific user.
3. Identifying the most active user based on the number of posts.