

355. Design Twitter

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Design a simplified version of Twitter where users can post tweets, follow/unfollow another user, and is able to see the 10 most recent tweets from the users they follow.

Implement the `Twitter` class:

- `Twitter()` Initializes your twitter object.
- `void postTweet(int userId, int tweetId)` Composes a new tweet with ID `tweetId` by the user `userId`. Each call to this function will represent a unique tweet.
- `List<Integer> getNewsFeed(int userId)` Retrieves the 10 most recent tweet IDs in the user's news feed. Each item in the news feed is the ID of the tweet and not the user. Tweets are ordered from most recent to oldest.
- `void follow(int followerId, int followeeId)` The user with ID `followerId` started following the user with ID `followeeId`.
- `void unfollow(int followerId, int followeeId)` The user with ID `followerId` started unfollowing the user with ID `followeeId`.

Example 1:

Input

```
["Twitter", "postTweet", "getNewsFeed", "follow", "postTweet", "getNewsFeed", "unfollow", "getNewsFeed",  
[[], [1, 5], [1], [1, 2], [2, 6], [1], [1, 2], [1]]
```

Output

```
[null, null, [5], null, null, [6, 5], null, [5]]
```

Explanation

```
Twitter twitter = new Twitter();  
twitter.postTweet(1, 5); // User 1 posts a new tweet (id = 5).  
twitter.getNewsFeed(1);  // User 1's news feed should return a list with 1 tweet id -> [5]. return [5].  
twitter.follow(1, 2);    // User 1 follows user 2.  
twitter.postTweet(2, 6); // User 2 posts a new tweet (id = 6).  
twitter.getNewsFeed(1);  // User 1's news feed should return a list with 2 tweet ids -> [6, 5]. Tweet id 6 precedes tweet id 5 because it is newer.  
twitter.unfollow(1, 2);  // User 1 unfollows user 2.  
twitter.getNewsFeed(1);  // User 1's news feed should return a list with 1 tweet id -> [5], since user 1 no longer follows user 2.
```

Constraints:

- $1 \leq \text{userId}, \text{followerId}, \text{followeeId} \leq 500$
- $0 \leq \text{tweetId} \leq 10^4$
- All the tweets have **unique** IDs.
- At most $3 * 10^4$ calls will be made to `postTweet`, `getNewsFeed`, `follow`, and `unfollow`.

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☒ Yes ☐ No

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