Description of class attributes and class operations

1. Class: RegisteredUser

**• Attributes:**

• userID: String - Unique identifier for each user; a string can contain characters and numbers.

• username: String - User’s chosen name; can contain various characters.

• emailAddress: String - User’s email address for communication and verification.

• phoneNumber: String - User’s contact number.

• **Operations:**

• Login(): Boolean - Verifies user credentials and logs them in if correct; returns true if successful.

• Logout(): Void - Logs the user out of the system; doesn’t return a value.

• createAccount(): Boolean - Creates a new user account; returns true if successful.

• DeleteAccount(): Boolean - Deletes the user’s account; returns true if successful.

• resetPassword(): Boolean - Resets the user’s password; returns true if successful.

2. Class: Bubble

**• Attributes:**

• bubbleID: int - Unique identifier for each bubble; numbers are straightforward for IDs.

• name: String - Name of the bubble; can contain various characters.

• category: String - Category or theme of the bubble.

• linkedBubble: List - List of bubbles linked to this bubble.

• **Operations:**

• createBubble(): Boolean - Creates a new bubble; returns true if successful.

• editBubble(): Boolean - Edits the properties of the bubble; returns true if successful.

• linkBubble(): Boolean - Links the current bubble to another bubble; returns true if successful.

• browseBubble(): List - Returns a list of posts within the bubble.

• likeBubble(): Boolean - Likes the bubble; returns true if successful.

• followBubble(): Boolean - Follows the bubble; returns true if successful.

3. Class: Post

• **Attributes:**

• postID: int - Unique identifier for each post; numbers are straightforward for IDs.

• content: String - Content of the post; can contain various characters.

• timeStamp: String - Time when the post was created; represented as a string.

• userID: String - ID of the user who created the post; can contain characters and numbers.

**• Operations:**

• createPost(): Boolean - Creates a new post; returns true if successful.

• editPost(): Boolean - Edits the content of the post; returns true if successful.

• deletePost(): Boolean - Deletes the post; returns true if successful.

• likePost(): Boolean - Likes the post; returns true if successful.

• sharePost(): Boolean - Shares the post; returns true if successful.

• dislikePost(): Boolean - Dislikes the post; returns true if successful.

• favoritePost(): Boolean - Favorites the post; returns true if successful.

4. Class: Algorithm

**• Attributes:**

* algorithmID: int- Unique identifier for each algorithm established. Numbers are straightforward for IDs.

**• Operations:**

• manageAlgorithm(): Boolean - Manages the functioning of the algorithm; returns true if successful.

• generateBubble(): Bubble - Generates a new bubble; returns a Bubble object.

• suggestMoreLikeThis(): List - Suggests more bubbles like the current one; returns a list of Bubbles.

• suggestLessLikeThis(): List - Suggests fewer bubbles like the current one; returns a list of Bubbles.

• removeContentContaining(): Boolean - Removes content based on certain criteria; returns true if successful.

5. Class: BrowserInterface

• **Attributes:**

• userInterface: String - HTML, CSS, JavaScript representing the UI; can contain various characters.

• versionID: String - Current version of the browser interface; can contain characters and numbers.

• **Operations:**

• displayBubble(): Void - Displays a bubble on the interface; doesn’t return a value.

• increaseBubbleSize(): Void - Increases the size of the displayed bubble; doesn’t return a value.

• decreaseBubbleSize(): Void - Decreases the size of the displayed bubble; doesn’t return a value.

6. Class: AppInterface

•Attributes:

• userInterface: String - XML, Java/Kotlin, Swift representing the UI; can contain various characters.

• versionID: String - Current version of the app interface; can contain characters and numbers.

**•Operations:**

• displayBubble(): Void - Displays a bubble on the app interface; doesn’t return a value.

• openFeed(): Void - Opens the user’s feed on the app; doesn’t return a value.

• refreshFeed(): Void - Refreshes the user’s feed on the app; doesn’t return a value.

• lightMode(): Void - Switches the app interface to light mode; doesn’t return a value.

• darkMode(): Void - Switches the app interface to dark mode; doesn’t return a value.

7. Class: Comment

• **Attributes:**

• userID: String - ID of the user who made the comment; can contain characters and numbers.

• content: String - Content of the comment; can contain various characters.

• postID: String - ID of the post to which the comment belongs; can contain characters and numbers.

**• Operations:**

• createComment(): Boolean - Creates a new comment; returns true if successful.

• deleteComment(): Boolean - Deletes the comment; returns true if successful.

• editComment(): Boolean - Edits the content of the comment; returns true if successful.

8. Class: Analytics

• **Attributes:**

• userID: String - ID of the user associated with the analytics; can contain characters and numbers.

• bubbleID: String - ID of the bubble associated with the analytics; can contain characters and numbers.

• viewCount, shareCount, interactionCount: int - Number of views, shares, interactions for the associated content; counting requires numbers.

• **Operations:**

• trackView(): Void - Increments the view count for the associated content; doesn’t return a value.

• trackShare(): Void - Increments the share count for the associated content; doesn’t return a value.