**Data Types:**

**User**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Allow Null** |
| **Email** | **String** | **Not NULL** |
| **Pin** | **string** | **Not NULL** |

**Cockboard**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Allow Null** |
| **Owner** | **String** | **Not NULL** |
| **Title** | **String** | **Not NULL** |
| **Update** | **Date** | **Not NULL** |

**Pushpins**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Allow Null** |
| **URL** | **String** | **Not NULL** |
| **Description** | **String** | **Not NULL** |
| **Tags** | **List <Strings>** | **NULL** |

**Business Logic Constraints**

1. User information will be loaded by the database administrator

2. System should show only Corkboards that the user owns, is watching and corkboards owned by another user that the logged-in user is following

3. Only the last four recently updated CorkBoards should be shown

4. If there are no recent updates, display a message that says “No Updates”

5. Corkboards listed in Recent Updates should be sorted with the most recently updated Corkboard appearing first

6. The Corkboard should be hyperlinked

7. Private Corkboards should be indicated in the list

8. Corkboard list should be sorted alphabetically by the Corkboard title

9. If user does not own corkboards, display message that says “You have no Corkboards”

10. The dropdown list for corkboard category should be sorted alphabetically

11. Corkboard category is managed by database administrators

12. Check to make sure that the URL is correct, and the filename has a known image format extension

13. A user cannot like his or her own PushPins

**Task Decomposition**

**Abstract Code**