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Java Project Proposal  
11.3.17

## **“Abduction” Java Client for Reddit**

### **Overview**

The goal of the project is to create a reddit client in java. The application will scrape Reddit content from the internet and display it in an intuitive manner to users, allowing all the functionality of the web application with more customizability. To do this, we will implement data structure classes to represent different types of content, then render said content in a predictable manner. Preferably, we would also develop a means to effectively cache posts locally to minimize redundant calls to the reddit API where possible, alongside adding smoother graphics if time allows.

### **Component List**

- RedditScraper class: Reads reddit content, relays back to application
- RedditPost class: Sends HTTP POST requests to Reddit about upvoting things, subscribing to subreddits, creating posts, or creating comments
- Controller class: Interprets input from the RedditDisplayer class, sends commands to the RedditScraper class to gather the appropriate data, then
- RedditDisplayer: Manages the GUI
- Post Class: Stores data from posts, such as username, title, content, comments, and current vote count.
- Comment class: Stores comment data, such as username, content, parent comment, children comments, and vote count.
- PostPreview class: Stores enough post data to display the link on the subreddit view page, namely the username, vote, title, and html link of a post.

- Subreddit class: Stores data about a given subreddit, such as the title, sidebar content (usually subreddit rules and associated links), and a list of PostPreview objects returned by the scraping class.
- LocalCache class: Stores already scraped data, contains methods for efficiently checking if specific data is already stored

### **Likely Design Patterns**

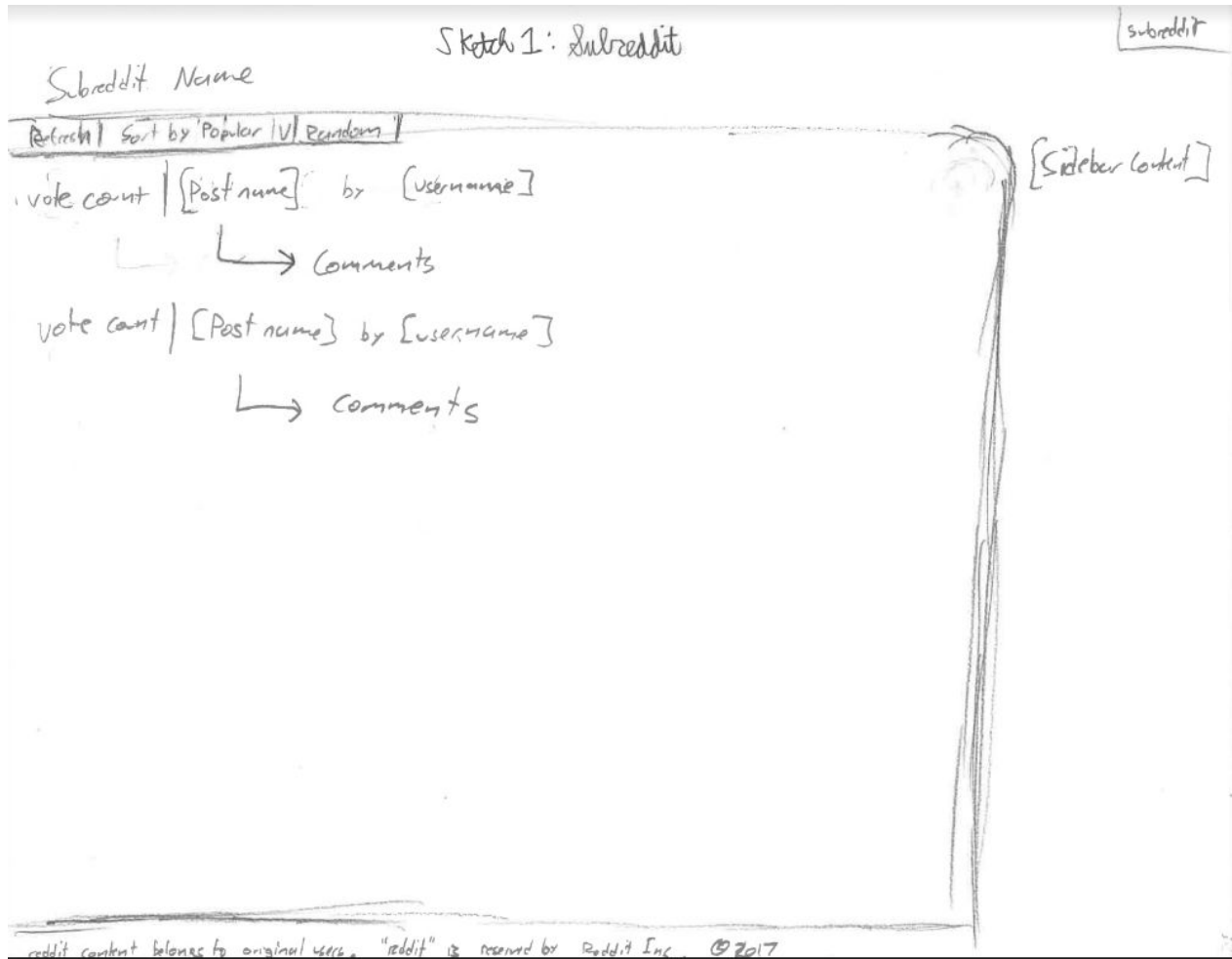
First, the entire project will stick to the MVC format to effectively manage and encapsulate tasks. Specifically, we intend to have a RedditDisplayer class act as the ‘view’, a Controller class act as the ‘controller’, and the RedditScraper and RedditPost classes serving as the ‘model’ components. Through this larger pattern, we will definitely use the Observer pattern for our user interface, where our Controller class would observe our RedditDisplayer class to get user input. Finally, we also anticipate using the composite pattern in our display, storing several display objects at once and facilitating group actions to apply animations to pages.

### **Tentative Role Assignments**

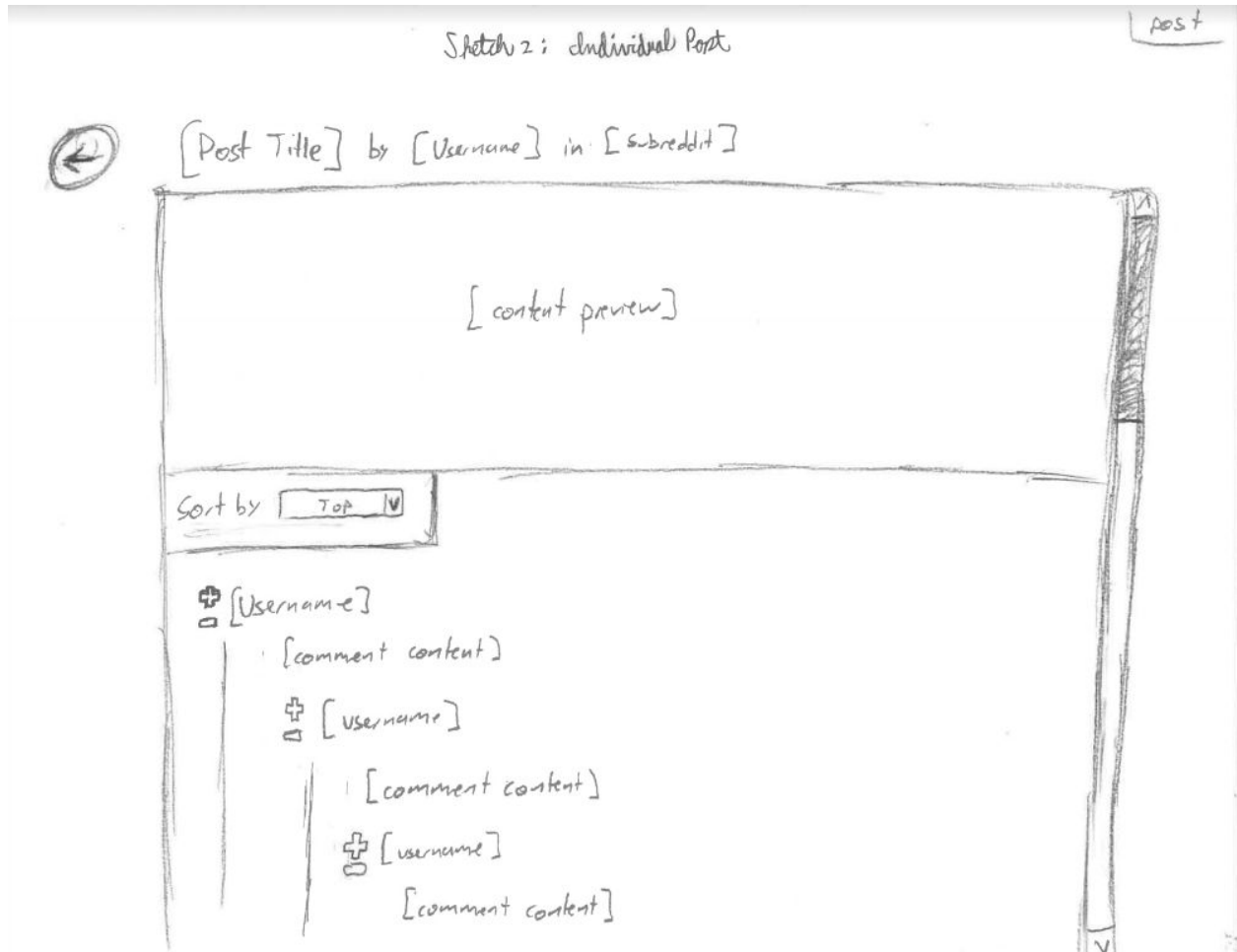
- Jordan: Caching, Post Requests
- Nathan: Scraper Class + Data Structures
- Thomas: Further GUI design and implementation
- Vermillion: Further GUI design and implementation
- Shared: Controller

## Sketches

Subreddit:



## Individual Post:



## User History:

