Name: Shane Lockwood

Title: Programming Project Registry

Project Summary: A registry where individuals could post a software application description they wish they had, or could use, but are unwilling to pay for it. Other users can review these descriptions and develop the application if they desire. Features include searching for projects given a keyword, filtering/sorting projects (date, estimated difficulty, completed, votes), links to code or websites developers have implemented, voting for heavily demanded applications, and individual pages for users with data related to them such as projects posted, and applications developed. Related works include Reddit's "Programming Requests" and Upwork.

Project Requirements:

ID	Description	Priority
UC-001	As a Poster, I want to be able to manipulate ideas.	H
UC-001.01	Post new ideas, so that everyone can see the idea.	H
UC-001.02	Modify ideas, so that the original post is modified to the new idea.	H
UC-001.02.a	Title	H
UC-001.02.b	Description	H
UC-001.03	Delete ideas, so that the idea is no longer posted.	L
UC-001.04	Hide ideas, so that no one but me can view the idea.	L
UC-002	As a Poster, Developer, or Guest, I want to be able to view ideas.	H
UC-002.01	View the details of an idea, so that I know what ideas have been posted.	H
UC-002.02	Sort the ideas, so that I can easily find ideas I'm looking for.	L
UC-002.02.a	By date posted.	L
UC-002.02.b	By number of votes.	L
UC-002.02	Search the ideas, so that I can easily find ideas I'm looking for.	L
UC-002.02.a	By poster.	L
UC-002.03	Filter the ideas, so that I can easily find ideas I'm looking for.	L
UC-002.03.a	By date posted.	L
UC-002.03.b	By number of votes.	L
UC-003	As a Poster, or Developer, I want to be able to vote on ideas, so that well liked ideas can be easily found.	H
UC-003.01	Posters and Developers must only be able to vote on an idea once.	H
UC-004	As a Poster, Developer, or Guest, I want to be able to view Posters' or Developers' profiles.	M
UC-004.01	So that I can see ideas they have posted or developed.	M
UC-005	As a Developer, I want to be able to mark an idea as being developed by me.	H
UC-005.01	I want to be able to add 1 or more links to relevant source code or end product.	M
UC-006	As a Poster, I want to be able to delete Developer's links to my ideas, so that inappropriate links aren't added.	M
UC-007	As a Developer, or Poster, I want to be able to vote on Developers' links.	M
UC-008	As a Poster, I want to be able to comment on an idea, so that the owner of the idea can view my comment and possibly modify their description.	M
UC-009	As a Poster, or Developer, I want to be able to vote on Posters' comments to ideas.	M
UC-010	As a Poster, I want to be able to delete comments to my ideas, so that negative or redundant comments aren't posted.	M
UC-011	As Admin, I want to be able to delete ideas, so that the idea is no longer posted.	L
UC-011.01	This will also delete all associated comments, votes, links, etc.	L

UI Mockups:

Home page: The tools at the top are standard throughout all the pages. The house icon links to this page (**Home**). The "User search" bar will perform a search on users given a keyword and link to the **User Search** page. The "Logout" button will log the user out. If the user isn't logged in, text input bars appear to allow the user to log in. The icon on the right will link to the user's **User Profile** page. The "Post Idea" button will link to the **Post Idea** page. The table displays the posted ideas with associated attributes (date, title, poster, votes). The titles link to the ideas' respective **View Idea** page. The posters link to the posters' respective **User Profile** page. The headers will sort the ideas by the respective column. The filters will filter the displayed ideas. The search bar will search all ideas associated with the given keyword and display those ideas. The pagination bar will display another set of ideas.

User search

Logout

Post Idea

12 May 2016   Other filters

Date	Title	Poster	Votes
01/01/1970	Awesome Project	Guy	13
09/10/2000	Less Awesome Project	Other Guy	11
10/26/1989	Quite Lame Project	That One Guy	3

← | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | →

Post Idea page: This page contains a simple form for posting a new idea. "Title" accepts a short description of the idea, and "Description" accepts a complete description of the idea. The "Submit" button will create the idea and redirect the user to the **Home** page.

Q User search

Logout

Title

Description

Submit

View Idea page: This page displays data associated to a respective idea (title, description, poster, posted date, last modified date, votes). The arrows under "Votes" allows voting for the respective idea. The first table displays the developers developing the idea. The headers will sort the developers by the respective column. The arrows in each row allow voting for the respective developer. The second table displays messages other developers have towards improving the idea's description. The arrows in the rows allow voting for the respective comments.

| | User search | | Logout | |

		Votes	13
Title	Title text		
Description	Description text		
Poster	Poster's name		
Posted date	01/01/1970		
Last modified	01/01/2010		

Development

Start Development

Developer	Link	Votes
Awesome Developer	www.github.com	3
Other Awesome Developer	www.bitbucket.org	3

← | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | →

Messages

New Message

Name-Date-Time	Comment	Vote
Name	Awesome comment	2
Other name	Other awesome comment	1

← | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | →

User Search page: This page is the result of entering a keyword into the "User search" bar and searching. All users associated with the keyword will be displayed in the table. Clicking on a name will link the user to the respective user's **User Profile** page.

Searched: Awesome

Name
Awesome guy
Awesome girl

← | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | →

User Profile page: This page displays a user's data (name, roles, ideas posted, ideas developed). The first table displays the ideas the user posted. The tables are sortable by column and the titles link to the respective **View Idea** pages. The second table is similar to the first table except it displays ideas the user has developed.

| Q User search |

| Logout |
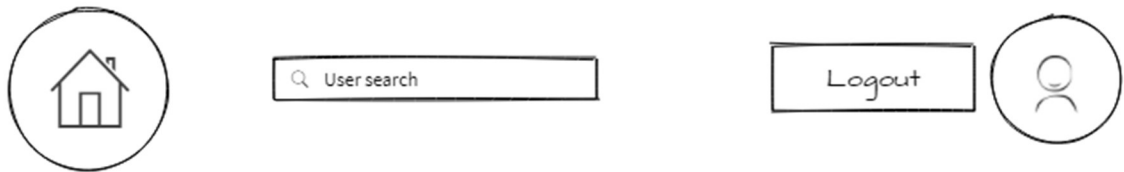
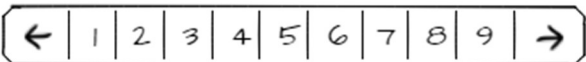Name   Awesome user

Roles   Poster, Developer

Ideas Posted

Date	Title	Votes
01/01/1970	Awesome Project	13
09/10/2000	Less Awesome Project	11
10/26/1989	Quite Lame Project	3

← | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | →
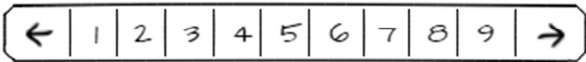
Ideas Developed

Developer	Link	Votes
Awesome Developer	www.github.com	3
Other Awesome Developer	www.bitbucket.org	3

← | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | →

Class Diagram: This diagram has also been uploaded separately. Comments are on the next page.
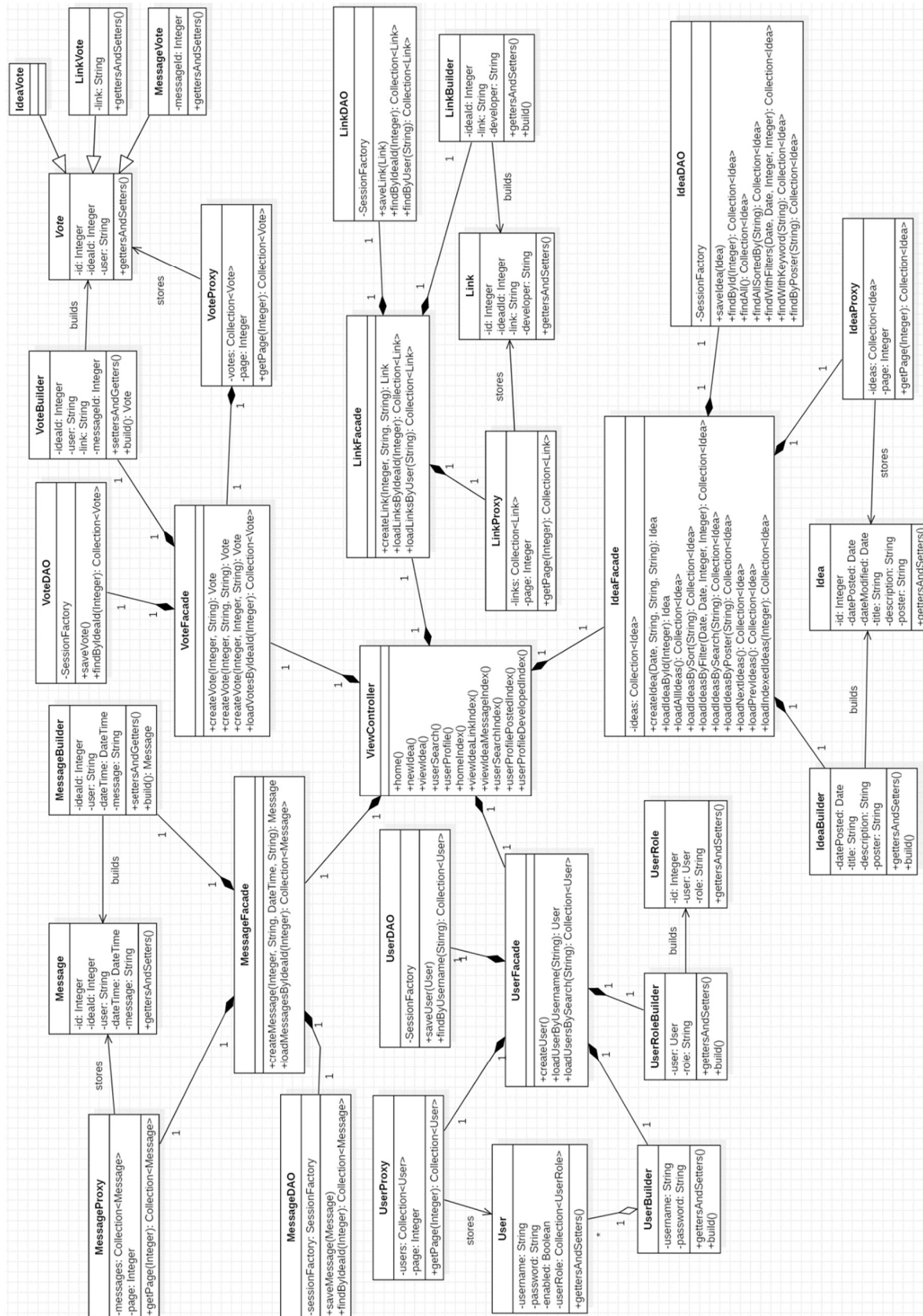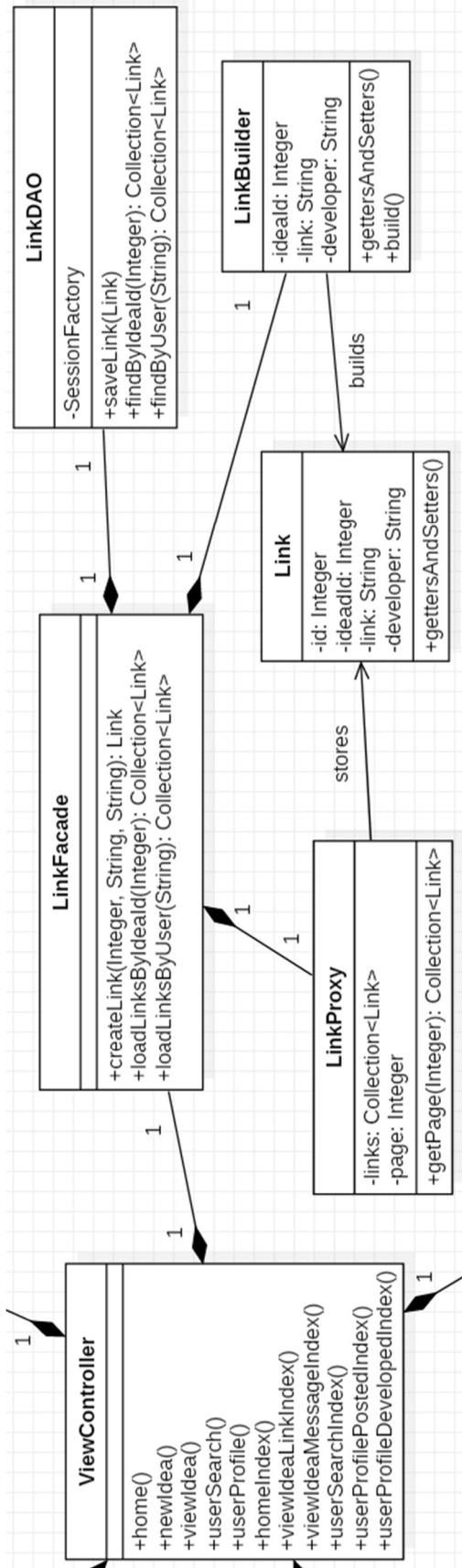
At the center of the diagram (top of the hierarchy) is the "ViewController". The controller handles the page requests from the end-user, and it is composed of 5 Façades. Each Façade is composed of a Builder, a Proxy, and a DAO (data access object) for handling their respective objects.

This is a diagram of the "Link" portion of the diagram. It shows the Controller, a Façade, a Proxy, a DAO, a Builder, and the Link class. The other 4 branches look similar.

LinkDAO
-SessionFactory
+saveLink(Link)
+findByIdeaId(Integer): Collection<Link>
+findByUser(String): Collection<Link>

LinkBuilder
-ideaId: Integer
-link: String
-developer: String
+gettersAndSetters()
+build()

LinkFacade
+createLink(Integer, String, String): Link
+loadLinksByIdeaId(Integer): Collection<Link>
+loadLinksByUser(String): Collection<Link>

Link
-id: Integer
-ideaId: Integer
-link: String
-developer: String
+gettersAndSetters()

LinkProxy
-links: Collection<Link>
-page: Integer
+getPage(Integer): Collection<Link>

ViewController
+home()
+newIdea()
+viewIdea()
+userSearch()
+userProfile()
+homeIndex()
+viewIdeaLinkIndex()
+viewIdeaMessageIndex()
+userSearchIndex()
+userProfilePostedIndex()
+userProfileDevelopedIndex()

builds

stores