

Bustr

A Social Image Sharing Application for Android

Team Members

Brad Rudolph (UNIT TESTING)

Michael Sawyer (DATABASE & BACK-END)

Michael Tostenson (CLIENT APP, NETWORK & UI MAGICIAN)

Ryan Stevenson (USER INTERFACE)

Sterling Baldwin (SERVER, DATABASE CODE & TESTING)

AGILEFANT (BURN DOWN)

Sprint Schedule

- PSI (Potentially Shippable Iterations)
 - 3 Sprints
 - Followed by HIP Sprint (Hardening, Innovation, Planning)

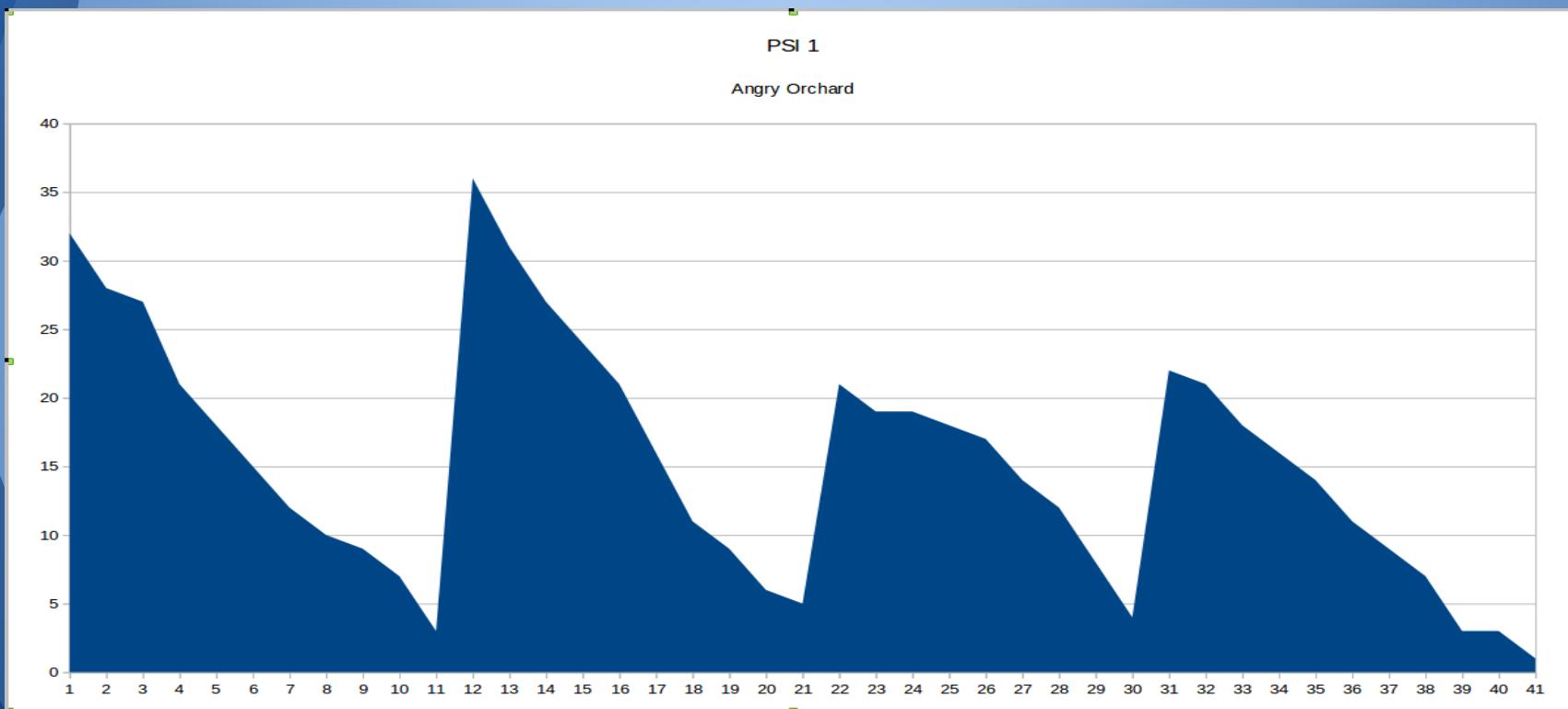
AGILEFANT (BURN DOWN)

Project Bustr

PSI 1 - Angry Orchard

- Sprint 1 (Camera & Server Setup)
- Sprint 2 (Client Server Communication)
- Sprint 3 (User Interface)
- Sprint 4 (Hardening, Innovation, Planning)

AGILEFANT (BURN DOWN)



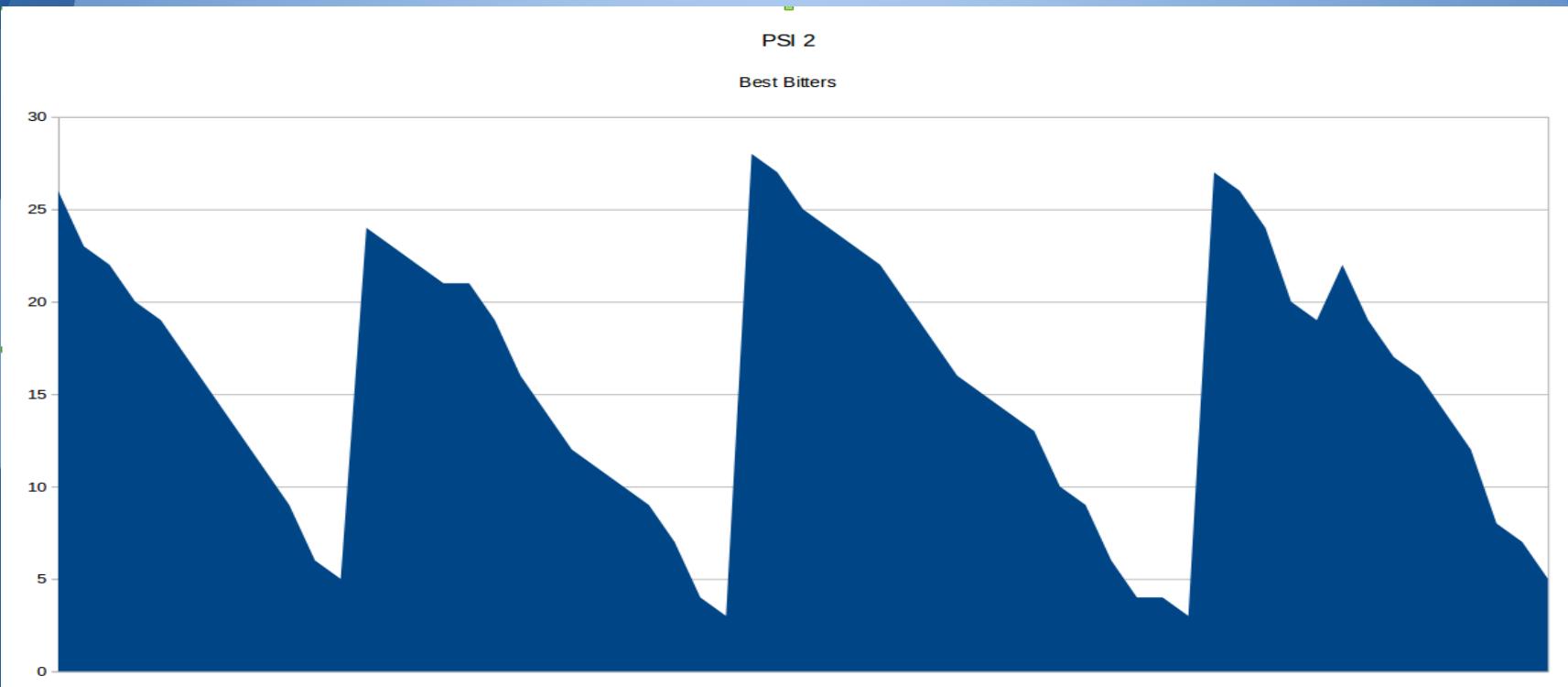
AGILEFANT (BURN DOWN)

Project BuStr

PSI 2 - Best Bitters

- Sprint 1 (Optimization)
- Sprint 2 (Refactoring)
- Sprint 3 (Unit Testing & Metrics)
- Sprint 4 (Hardening, Innovation, Planning)

AGILEFANT (BURN DOWN)



REPO

315+ commits over the semester with 3 branches.

Aug 24, 2014 – Dec 6, 2014

Contributions to master, excluding merge commits

Contributions: **Commits** ▾



Metrics

Server:

Cyclomatic Complexity - 4.9/20

Cohesion - 0.5

Lines Of Code - 1174

Metrics

Client:

Cyclomatic Complexity - 1.836

Cohesion - .258

Lines Of Code - 1197

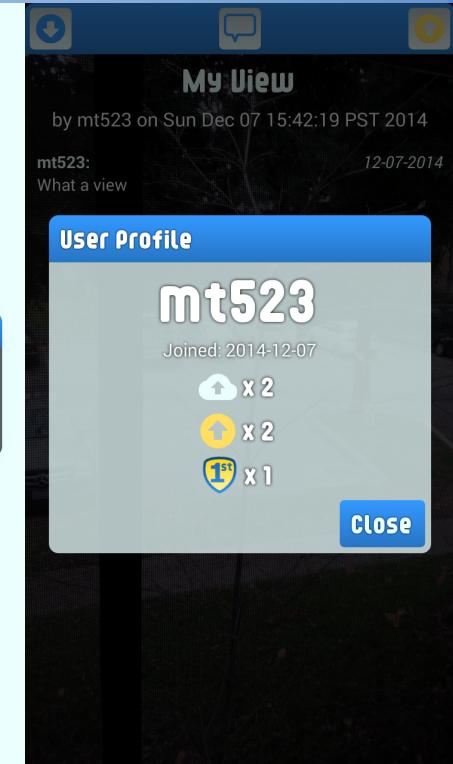
BUSTR VIEWS



View

Getting your location...

Cancel



MySQL Server

Users

Field	Type	Null	Key	Default	Extra
user_id	int(11)	NO	PRI	NULL	auto_increment
user_name	varchar(255)	NO		NULL	
user_passwd	varchar(255)	YES		NULL	
user_join	date	YES		NULL	

MySQL Server

Votes

Field	Type	Null	Key	Default	Extra
user_id	int(11)	YES	MUL	NULL	
image_id	int(11)	YES	MUL	NULL	
up_vote	tinyint(1)	NO		NULL	

MySQL Server

ImageData

Field	Type	Null	Key	Default	Extra		
lat	decimal(8,4)	YES		NULL			
lng	decimal(8,4)	YES		NULL			
imagePath	varchar(20)	YES		NULL			
rep	int(11)	YES		NULL			
commentPath	varchar(20)	YES		NULL			
caption	varchar(255)	YES		NULL			
timestamp	timestamp	NO		CURRENT_TIMESTAMP			
user_id	int(11)	NO		NULL			
image_id	int(11)	NO	PRI	NULL		auto_increment	
first	int(11)	YES		NULL			

Sample Output- debug mode

```
[sudo] password for buster:
[=====]
[==Welcome to Bustr Server!==]
[==We have 28 images on file!==]

Starting memory profiler
free memory: 90654
allocated memory: 92160
max memory: 1359872
total free memory: 1358366
Connecting to database
listening on port 8000...
[+] Received a new packet
2014/12/07 13:25:08
    Connected to 10.0.1.19
    Getting incomming data . . . finished recieving packet
        Recieved image request from 0.0, 0.0
[+] USER AUTH
[+] User Auth where userId=darth and password=i am your father
[+] Found user name=darth, password=vader
[+] Sent FAILURE
    Closing socket and input output streams.
[+] Received a new packet
2014/12/07 13:25:08
    Connected to 10.0.1.19
    Getting incomming data . . . finished recieving packet
        Recieved image request from 0.0, 0.0
[+] IMAGE REQUEST
[+] Handling image request for image null
[!] SELECT * FROM imageData WHERE imagePath="null";
[-] Failed to send image with namenull
[+] Sent FAILURE
    Closing socket and input output streams.
[+] Received a new packet
2014/12/07 13:25:08
    Connected to 10.0.1.19
    Getting incomming data . . . finished recieving packet
        Recieved image request from 0.0, 0.0
[+] DOWNVOTE
[+] Voting /home/bustr/Desktop/uploads/3.jpg
[!] UPDATE imageData SET rep = (rep + -1) WHERE imagePath="uploads/3.jpg";
[!] SELECT * FROM imageData WHERE imagePath="uploads/3.jpg";
[!] SELECT * FROM users WHERE user_name="darth";
[!] SELECT * FROM votes WHERE image_id=122;
[!] DELETE FROM votes WHERE image_id=122 AND user_id=9;
[+] Sent SUCCESS
```

```
ysql> select * from imageData;
+-----+-----+-----+-----+-----+-----+
| lat | lng | imagePath | rep | commentPath | caption |
+-----+-----+-----+-----+-----+-----+
| 39.7330 | -121.8612 | uploads/3.jpg | -13 | comments/3.txt | picture |
| 39.7330 | -121.8612 | uploads/4.jpg | 17 | comments/4.txt | log |
| 39.7281 | -121.8456 | uploads/6.jpg | 2 | comments/6.txt |  |
| 39.7280 | -121.8458 | uploads/7.jpg | 0 | comments/7.txt | library |
| 39.7280 | -121.8458 | uploads/8.jpg | 1 | comments/8.txt |  |
| 39.7329 | -121.8612 | uploads/11.jpg | 45 | comments/11.txt | bookshelf |
| 39.7307 | -121.8597 | uploads/12.jpg | 1 | comments/12.txt | bulldog taqueria |
| 39.7330 | -121.8612 | uploads/13.jpg | -1 | comments/13.txt | There's a cat on my desk |
| 39.7329 | -121.8611 | uploads/14.jpg | 2 | comments/14.txt | there will be blood |
| 0.0000 | 0.0000 | uploads/15.jpg | 1 | comments/15.txt | do or do not, there is no try |
| 0.0000 | 0.0000 | uploads/15.jpg | 1 | comments/15.txt | do or do not, there is no try |
| 0.0000 | 0.0000 | uploads/16.jpg | 1 | comments/16.txt | do or do not, there is no try |
| 0.0000 | 0.0000 | uploads/17.jpg | 1 | comments/17.txt | do or do not, there is no try |
| 39.7329 | -121.8612 | uploads/18.jpg | 0 | comments/18.txt | Outside v1.0 |
| 39.7330 | -121.8610 | uploads/brad.jpg | 1338 | comments/brad.txt | Bradular bro |
| 39.7329 | -121.8611 | uploads/19.jpg | 1 | comments/19.txt | darkest hour! |
| 39.7333 | -121.8606 | uploads/20.jpg | 1 | comments/20.txt | dead battery |
| 39.7333 | -121.8606 | uploads/21.jpg | 1 | comments/21.txt | dead battery |
| 0.0000 | 0.0000 | uploads/22.jpg | 1 | comments/22.txt | do or do not, there is no try |
| 0.0000 | 0.0000 | uploads/23.jpg | 1 | comments/23.txt | do or do not, there is no try |
| 0.0000 | 0.0000 | uploads/24.jpg | 1 | comments/24.txt | do or do not, there is no try |
| 0.0000 | 0.0000 | uploads/25.jpg | 1 | comments/25.txt | do or do not, there is no try |
| 39.7330 | -121.8611 | uploads/26.jpg | 1 | comments/26.txt | nuttin |
| 12.0000 | 12.0000 | uploads/27.jpg | 1 | comments/27.txt | nothing |
| 0.0000 | 0.0000 | uploads/28.jpg | 1 | comments/28.txt | do or do not, there is no try |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
ysql> select * from users;
+-----+-----+-----+-----+
| user_id | user_name | user_passwd | user_join |
+-----+-----+-----+-----+
| 9 | darth | vader | 2014-12-06 |
| 12 | michael | b9aea6f6a9a6e64e46d227d1170cff | 2014-12-06 |
| 13 | x | -622b1b9ed9737fc0ba37a9b1eaa3985a | 2014-12-06 |
| 14 | hi | 49f68a5c8493ec2c0bf489821c21fc3b | 2014-12-06 |
| 15 | chuck | 1a1dc91c907325c69271ddff0c944bc72 | 2014-12-07 |
+-----+-----+-----+-----+
```

Design (MVC)

Server-Model: MySQL through Java

View: XML

Client-Controller: Android Java

Socket Programming: Java

TESTING

Grey Box Testing (Activity Testing & Server Testing)

The screenshot shows the Eclipse IDE interface with the following details:

- Java - BustrTest/src/com/bustr/test/CameraActivityTest.java - Eclipse**: The code is a JUnit test for the `CameraActivity`. It includes imports for `com.bustr.test` and `com.bustr.activities.CameraActivity`. The class `CameraActivityTest` extends `ActivityInstrumentationTestCase2`. It has a static log tag, a private camera reference, and a constructor that calls the superclass constructor with `CameraActivity.class`. The `setUp()` method opens the camera. The `testPrecondition()` method asserts that the camera is not null.
- Console Tab (LogCat)**: Displays the following log output from the emulator:

```
[2014-12-06 14:52:11 - BustrTest] Launching a new emulator with Virtual Device 'bustcam'  
[2014-12-06 14:52:17 - BustrTest] New emulator found: emulator-5554  
[2014-12-06 14:52:17 - BustrTest] Waiting for HOME ('android.process.acore') to be launched...  
[2014-12-06 14:53:02 - BustrTest] HOME is up on device 'emulator-5554'  
[2014-12-06 14:53:02 - BustrTest] Uploading BustrTest.apk onto device 'emulator-5554'  
[2014-12-06 14:53:02 - BustrTest] Installing BustrTest.apk...  
[2014-12-06 14:53:39 - BustrTest] Success!  
[2014-12-06 14:53:39 - BustrTest] Project dependency found, installing: Bustr  
[2014-12-06 14:53:39 - BustrTest] Uploading Bustr.apk onto device 'emulator-5554'  
[2014-12-06 14:53:40 - Bustr] Installing Bustr.apk...  
[2014-12-06 14:53:48 - Bustr] Success!  
[2014-12-06 14:53:49 - library] Could not find library.apk!  
[2014-12-06 14:53:49 - BustrTest] Launching instrumentation android.test.InstrumentationTestRunner on emulator-5554  
[2014-12-06 14:53:59 - BustrTest] Sending test information to Eclipse  
[2014-12-06 14:54:06 - BustrTest] Test run finished
```

- Launching Bustr (1)**: A progress bar at the bottom indicates the test run is finished.

Questions and Answers