**Project Avalanche: Week 2 Sprint**

Meeting 2: 4/12/2016

**Scrum Minutes (Status/Plans/Issues):**

* Some of us had a really hard time getting Android Studio to run on our machines, but now every member has it working.
* Turns out you need a higher amount of RAM to be able to run the simulator.
* Accuracy for the given Pi Rating was between 51-59% for 2011-2015.
* Discovered error in accuracy reporting algorithm. Will look more into it.
* Learned how to create different xml objects in Android Studio (spinner, TableView, etc).
* Learned how to create/use different Android objects in Android Studio (Intent, Activity, Application, etc).
* Problem with first attempt at getting app to reset when moving from one week to the next.
* Should be able to easily resolve in next week's sprint.

**Long-Term Sprints Plan:**

***Week 1: 4/5 - 4/12***

Build a knowledge base for each individual component and get to know the tools that we need to use.

***Week 2: 4/13 - 4/19***

Build basic app functionality on new platform so that Project Avalanche behaves similarly to Project Skilift.

***Week 3: 4/20 - 4/26***

Integrate new features into Project Avalanche. Make sure the app is completely functional aesthetically and algorithmically.

***Week 4: 4/27 - 5/3***

Test and troubleshoot Project Avalanche. Fine-tune GUI to give a clear presentation and optimize algorithms further.

**Overall desired app features:**

Predictor application that will allow the user to simulate a season.

Use algorithms to give suggestions to the user about who is more likely to win.

The ability to give greater confidence of a prediction by using three different algorithms.

Improved accuracy given by the two algorithms developed in the past.

The ability to incorporate these algorithms as services through an SPI.

Test the new Pi Rating algorithm for accuracy.

Retest the two previous algorithms for accuracy and find ways to improve their prediction success rate.

Build a test Android app that incorporates SPI.

We would like to use SQLite as our DBMS.

Build a test SQLite app to build confidence as we integrate it into our Android app.

Aesthetically pleasing user interface with logical activity flow.

User interface with football related graphics to give more context to the application.

Not too many graphics that the interface loses its aesthetic appeal.

**Week 2 Sprint Work Division:**

Mario: Find out what the expected Pi Rating algorithm accuracy should be. Tweak it to improve it.

Margaret: Optimize Power Ranking and Bayes algorithms. Research adding SPI to Android.

Patrick: Build SQLite Test App to incorporate into our Android App.

Christine: Begin building a GUI for the NFLApp.

**Summary Report:**

The Pi rating algorithm has been implemented and adjusted to give improved prediction accuracy.

We need to continue working on adding SPI functionality to Android applications. Part of the problem is knowing which XML files need to be manipulated and where files should go within the Android directory hierarchy.

Our SQLite test app needs to be developed some more as some of our resources were outdated. We now know what direction we should move in, so it should not take too long to finish.

Our GUI test was a success, now we need to determine how many features to add so as to not bog ourselves down with “feature creep”.

**Last Week’s Backlog:**

* Enable use of ServiceProvider with Android.
* Find ways to optimize the Pi Rating algorithm.
* Get a good estimate on other algorithms’ accuracy.
* Modify previous algorithms to improve performance.
* Build test application that successfully moves from one week's selections/results to the next (using dummy data) for all 17 weeks in a season.
* Build test SQLite application to practice reading and writing from and to SQLite Database. Merge the two test applications once both run successfully.
* Build test applications that use different Android tools.

**Current Backlog:**

* Enable use of ServiceProvider with Android.
* Build larger test application that successfully moves from one week's selections/results to the next (using dummy data) for all 17 weeks in a season.
* Build test SQLite application to practice reading and writing from and to SQLite Database. Merge the two test applications once both run successfully.
* Incorporate graphics into the Android app.

**Burndown Chart:**

**Progress/User Stories:**

* Some of us had trouble running the Android Emulator if our computer had less than 2GB of RAM.
* Git is having issues uploading SQLite DB files.
* SPI enabling is proving to be difficult.
* Best Pi Rating prediction accuracy is 62-71%.

**Screenshots:**

Screenshots can be found in the ./images/screenshots directory.