CSCI 3308 Software Development Methods and Tools
Project Part 1

Who: Bradley Arnot
Andrew Candelaresi
Kelsey Dowd
Lauren Mitchell

Title: Heart Rate Analysis

Description: We are planning on using an Arduino and SparkFun's Pulse Tracker to create analysis based on activities. We want to compare our heart rate levels based on different activities that we do and provide feedback based on results. For example, your heart rate while playing sports vs playing video games.

Vision Statement: A heartrate tracker to investigate the relationship between your pulse and emotional state.

Motivation: This is applicable to everyone in college and in life in general. This will help us understand de-stressing in life situations.

Risks: Limited knowledge of Arduino, relatively small team, relatively small time period, scheduling conflicts, if the data doesn't correlate to anything, needing to talk with more medically experienced people

Mitigation Strategy: Attending Aduino workshops, shorter sprints to attend to blocks faster

VCS: github
https://github.com/candeladd/Methods-Tools_ProjectFall2015.git

List of requirements:

User Requirements			
ID	**Description**	**Agile Sizing**	**Priority**
US-01	As a user, I want to have my heart rate patterns displayed so I can understand the irregularities.	15	High
US-02	As system providers, we want to provide advice based on results of heart rate patterns so that we can allow the users to make use of their data.	18	High
US-03	As system designers, we want to provide an interactive interface so that users can understand the information.	10	Medium
US-04	As system designers, we want to make an easy to use application that runs so that the user can interact and see updates in an easy way.	10	Medium

Functional Requirements			
ID	**Description**	**Agile Sizing**	**Priority**
FN-01	As system developers, we want to read in the user's heart rate by using the Arduino heart sensor so that we can use the data to perform analysis.	18	High
FN-02	As system developers, we want to design an application to read the data so that we can convey it to our users.	18	High
FN-03	As system developers, we want to ensure that the app has Wi-Fi/Bluetooth connection so that the data can sync with it.	12	High

Non-Functional Requirements			
ID	**Description**	**Agile Sizing**	**Priority**
NF-01	As system developers, we want to ensure security of the data so that our users' information is not leaked into the wrong hands.	8	Low
NF-02	As system developers, we want some form of container to house the technology so that it is wearable to the user.	8	Low

Methodology: Mashup of Agile and Waterfall, 1 week sprints to mitigate blocks

Project Tracking Software: Freedcamp, and Slack for communication
https://freedcamp.com/Laurens_Projects_Dz5/Software_Method_3iw/todos

Project Plan Part 1: