SnowGauge

**Definitions:**

* Season
  + Can define as September through August
    - Most ski resorts in the northern hemisphere open around Thanksgiving and close around mid-April, but some resorts like Timberline on Mount Hood are open until mid-August. I feel this should still be defined as part of the prior season although it is arbitrary.
* Run
  + A period of descent following a period of ascent
* Day
  + One recording session (can be paused and resumed)

**Features:**

* Bare minimum
  + Record, pause, stop
    - We need a button and method for determining when data should be kept track of and when it should be ignored
  + Number of runs
    - Kept track of as state within a current recording session
    - Incremented once a user begins to drop altitude after a period of gaining it
  + Vertical drop
    - A total of the number of feet descended during the day or season
  + Speed
    - Current speed
    - Max speed
    - Average speed
    - Optional:
      * Average moving speed
      * Average downhill speed
      * Average/fastest/slowest uphill speed?
        + Could be fun to log the average speed of ascents (on lifts) so users could compare the lift speeds at different resorts
* Do if we have time:
  + Changing units
    - Ability to change from metric/imperial
  + Historical Data
    - Once the stop button is pressed all of the data is saved into a data structure (probably a Map) and written to disk
    - The data is also used to update any season data currently on disk
  + Leaderboard
  + User accounts
    - Name
    - Email
    - Ski or snowboard
  + Map view
    - Display user’s current location on a map
    - Display other user’s locations on the same map

**Activities:**

* Basic recording
  + Open app, press record button, see prompt for allowing location, select allow, see numbers populate, ski down the hill and see numbers increment, press stop record button, see prompt for whether or not to save, press save
* Viewing historical data and deleting a recording
  + Open app, press button to view historical data, see a list of dates than can be selected, press on a date, see page displaying various statistics from that date, press delete button, see a prompt for confirming delete, press confirm button, see list of dates minus the one that was deleted
* Viewing leaderboard and changing categories
  + Open app, press button to view leaderboards, see a list of users ranked by number of days recorded listing names and number of days, press dropdown that currently says “# of Days”, select “Total Vertical” from dropdown, see a list of users ranked by total vertical in the season, repeat for other categories….