Lord of the Running

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Requirements Document

Name of App: **Lord of the Running** - "One does not simply walk into Mordor"

Type of App: Gamification of run tracking services

Description: This web application will allow registered users to gamify their running experience by importing running data through various run tracking services (i.e. Strava) or direct upload and parsing of TCX files. The user's individual runs will be mapped to a Lord of the Rings map and follow the storyline and journey of the Lord of the Rings. Users will proceed in the quest by direct correlation to their runs (i.e. distance, speed, pace, run streaks, etc.).

Technologies:

- HTML
- CSS / SCSS
- Javascript:
    - Angularjs
    - jQuery
    - Node.js (ng-auth)
    - Express (ng-auth)
    - MongoDB (ng-auth)
- Strava API
- TCX file upload and parsing (XML file)
- Google Maps API
- Facebook - login (ng-auth)
- Google - login (ng-auth)

Features (MVP):

1. User Login / account creation
2. User profile (update and delete account)
3. Upload and parse TCX file
4. Link user's Strava account / login with Strava
5. Pull Strava run data to user's account
6. Plot progress on Lord of the Rings map (Frodo and Sam's journey) using run distances
7. Ability for user to select and view individual runs and see run data (distance, time, pace)
8. Ability for user to remove an uploaded run (if uploaded via TCX, not Strava)

Roadmap (future requirements):

- User signup/login with Facebook or Google
- Ability to add friends
- Ability for the user to gain weapons, health, experience, etc. to expand game
- Lord of the Rings events as user makes progress (following storyline)
- Difficulty levels - changes run distance to Lord of the Rings distance ratio
- The Hobbit story version
- Leaderboards / Records (i.e. fastest completion of journey)
- Sync with other services (MapMyRun, Garmin Connect, FitBit, etc.)

User Stories

Story Name: User Login / Account Creation

Size: Medium

Value Statement: As a user of Lord of the Running, I need the ability to login so that I will be able to have an individual, saved presence on the application to track and manage the running data on my profile and see my continued progress.

Assumptions: None

Acceptance:

1. Setup ng-auth boilerplate for use with my application
2. User ability to log into and maintain a process on Lord of the Running
3. User ability to login/signup with Facebook and/or Google account (roadmap feature - future requirement)

Notes: See WF1

Story Name: User profile (update account)

Size: Small

Value Statement: As a user of Lord of the Running, I need the ability to edit and update my profile information. This may include: my name, username, location, etc.

Assumptions: User must have an account on Lord of the Running

Acceptance:

1. User can successfully update profile fields and these will be saved to the server maintaining the user's login information (this requirement is generally included within the ng-auth boilerplate)
2. If the user changes their username, the old username will be freed up for future users signing up
3. If the user changes their username, all data associated with the old user must now be associated with the new username

Notes: See WF2

Story Name: User profile (delete account)

Size: Small

Value Statement: As a user of Lord of the Running, I need the ability to delete my account entirely.

Assumptions: User must have an account on Lord of the Running

Acceptance:

1. User can successfully remove all account information and delete username
2. Successful deletion of a user will free up the username for future users signing up

Notes: See WF2

Story Name: Upload and parse TCX file

Size: Extra large

Value Statement: As a user of Lord of the Running, if I do not have a Strava account, or do not link my Strava account, I need the ability to import running data using a TCX file.

Assumptions:

1. User has TCX files to upload

Acceptance:

1. User can upload TCX file to the Lord of the Running
2. The application can take a user's uploaded TCX file and parse the data; this will likely be done by converting the TCX file (XML style) to JSON format and pulling key data points from the file.
3. The application can take the parsed data and post to the user's account

Notes: See WF4

Story Name: Sign in with Strava / Link Strava account

Size: Medium

Value Statement: As a user of Lord of the Running, I may need the ability to sign in using my Strava account. I may also need the ability to link my Strava account (if I did not sign up using Strava).

Assumptions:

1. User has a Strava account

Acceptance:

1. User can successfully link Strava account to Lord of the Running
2. User can sign up for Lord of the Running using Strava account

Notes: See WF1, WF2, & WF3

Story Name: Pull Strava run data to user's account

Size: Extra large

Value Statement: As a user of Lord of the Running, I need the ability to have the Lord of the Running application to automatically sync new run activity from Strava, this will provide a better user experience as a user because I will not need to manually upload TCX files to Lord of the Running.

Assumptions:
1. User has Strava account with running data
2. User has linked Strava account to Lord of the Running

Acceptance:
1. Lord of the Running application can successfully pull running data from user's linked Strava account
2. Lord of the Running can interpret data from Strava and post to user's account

Notes: None

Story Name: Plot progress on Lord of the Rings map

Size: Extra Large

Value Statement: As a user of Lord of the Running, I need the ability to see my progress plotted on the game map (Lord of the Rings).

Assumptions:
1. User is a registered user of Lord of the Running

Acceptance:
1. Lord of the Rings map on application
2. User's uploaded/imported runs plot to Lord of the Rings map
3. Progress bar (percent of journey completed)

Notes: See WF5

Story Name: Ability for user to select and view individual runs and see run data

Size: Medium

Value Statement: As a user of Lord of the Running, I need the ability to view individual runs and see the individual run statistics (i.e. distance, time, pace, etc.)

Assumptions:
1. User has at least 1 run uploaded to Lord of the Running
2. User is logged in

Acceptance:

1. User can view an individual run and see basic run data (distance, time, pace, etc.)

Notes: See WF6 & WF7

Story Name: Ability for user to remove an uploaded run (if uploaded via TCX, not Strava)

Size: Medium

Value Statement: As a user of Lord of the Running, I may need the ability to remove a run uploaded via TCX. I will have the ability to remove runs imported via Strava directly through Strava (not on Lord of the Running).

Assumptions:

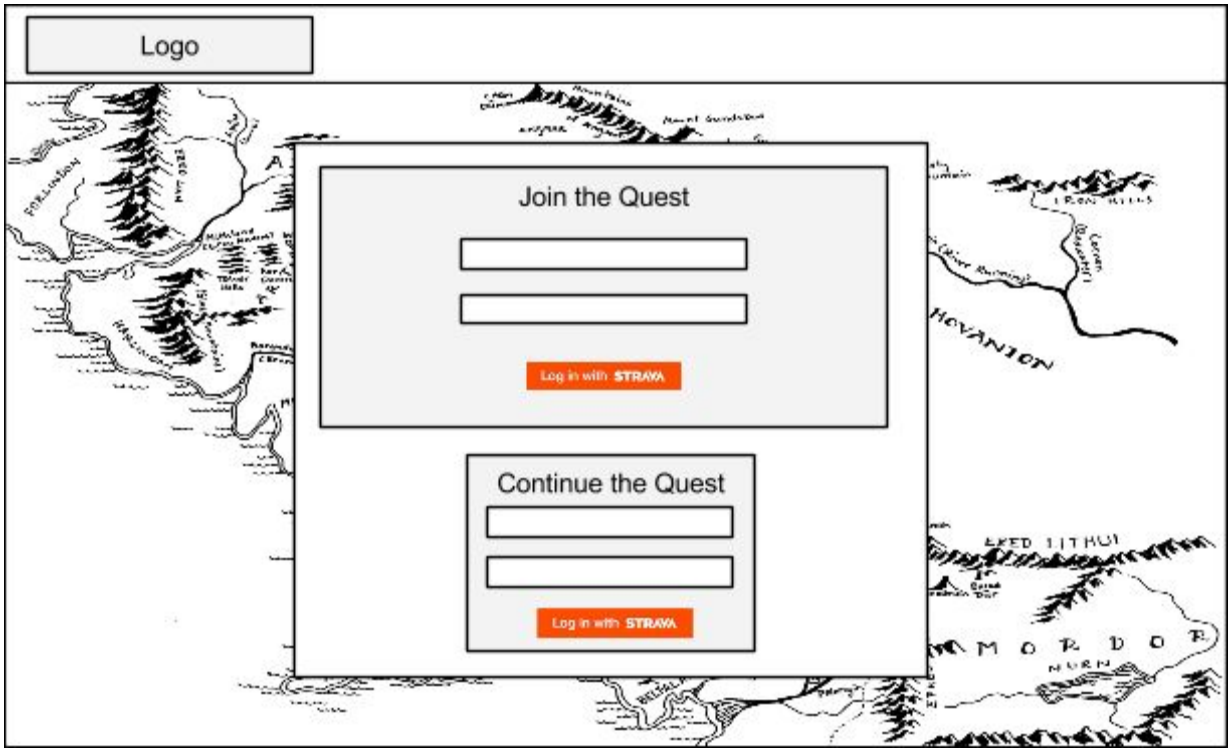
1. User has at least 1 run uploaded via TCX
2. User is logged in

Acceptance:

1. User can delete an individual run from account.
2. A deleted run will reduce progress in the journey by how much the run increased progress in the journey when originally uploaded

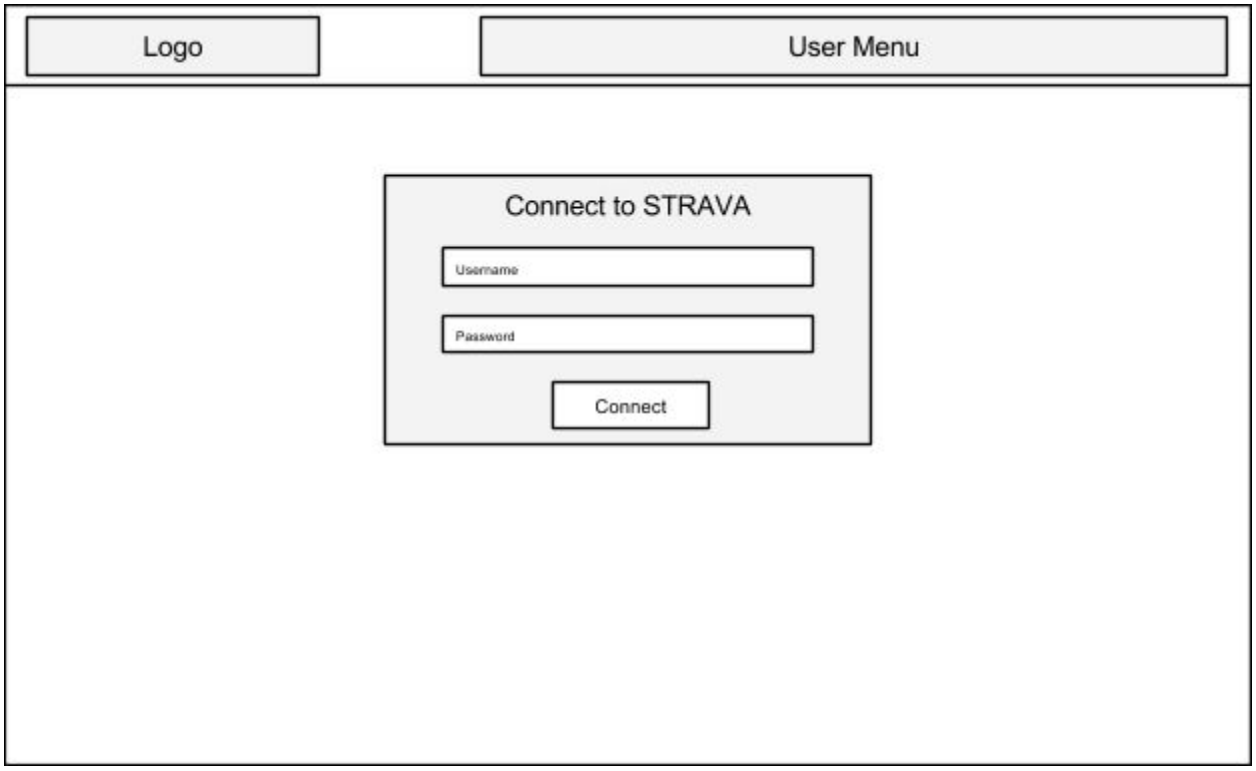
Notes: See WF7

Wire Frames

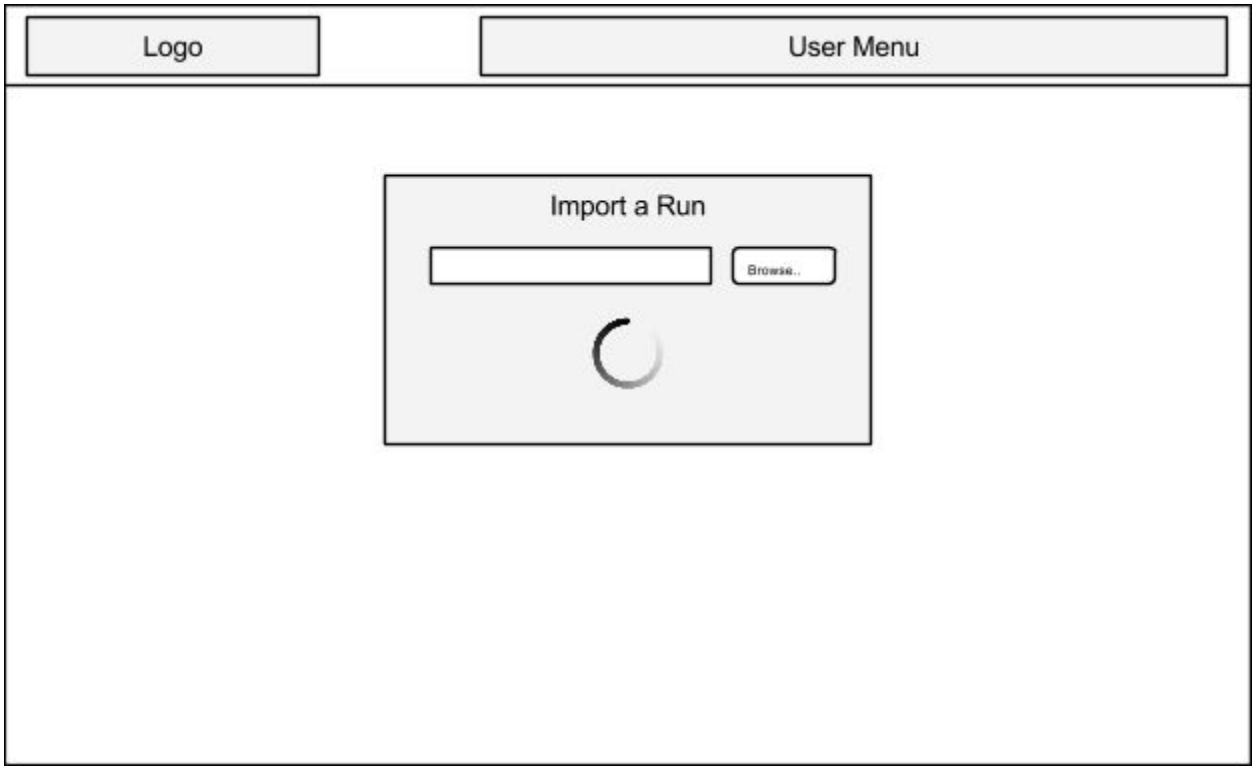


WF1

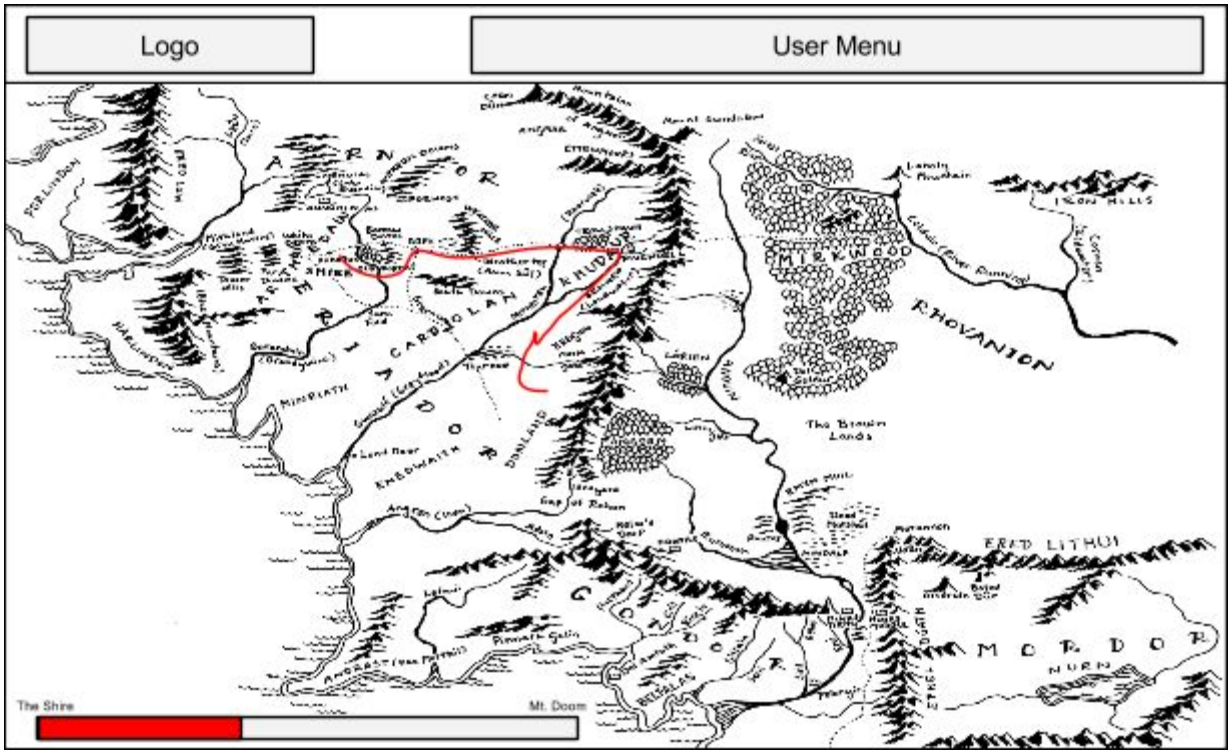
WF2


Logo
User Menu
Connect to STRAVA
Username
Password
Connect

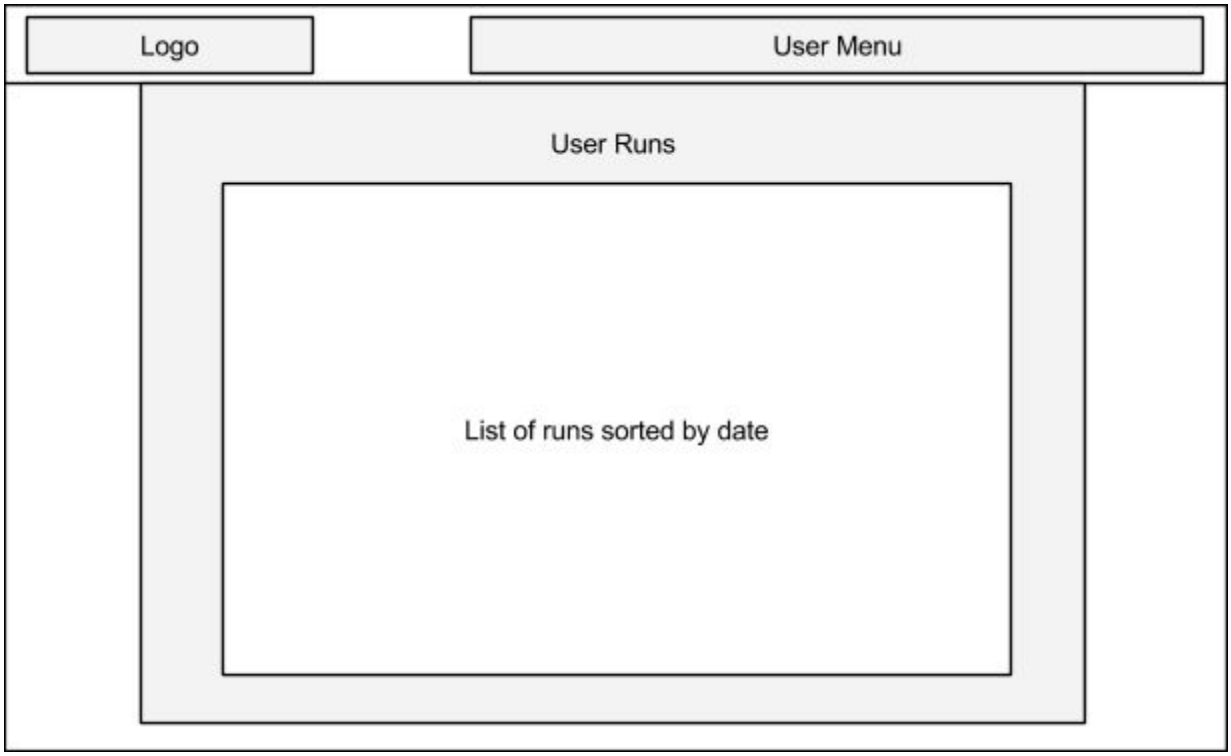
WF3


Logo
User Menu
Import a Run
Browse...

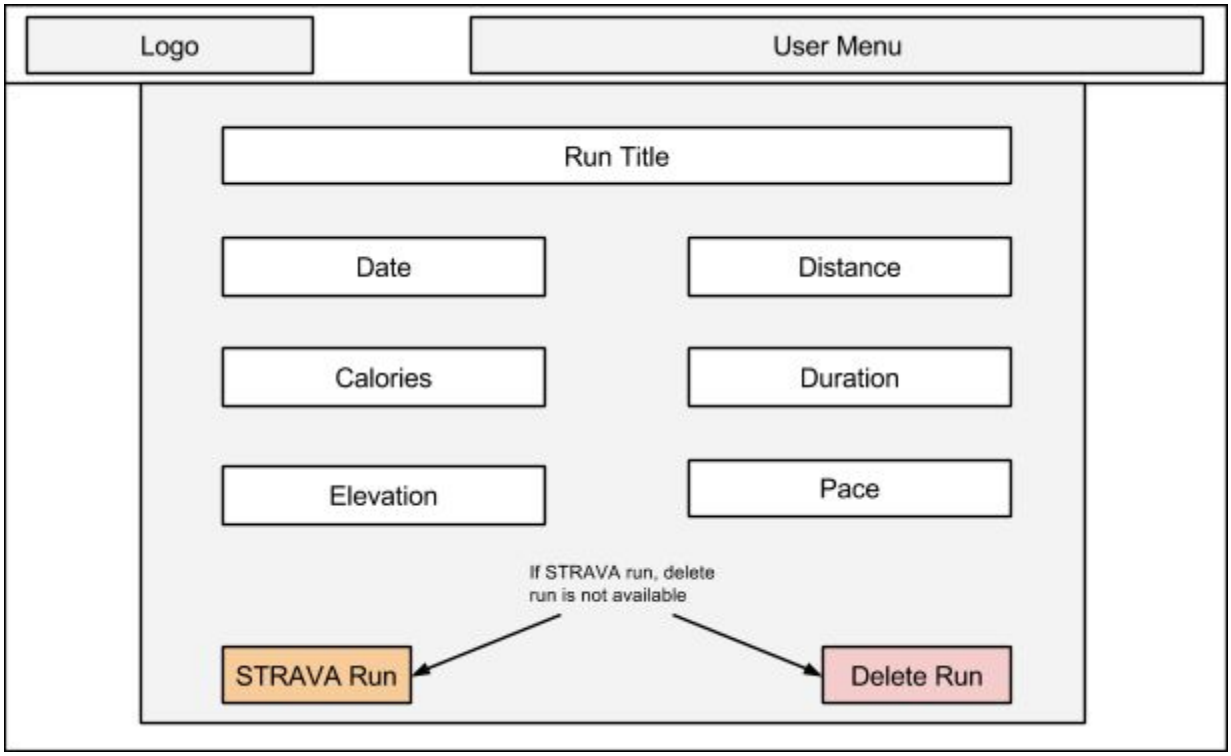
WF4


Logo
User Menu
The Shire
Mt. Doom

WF5


Logo
User Menu
User Runs
List of runs sorted by date

WF6


Logo
User Menu
Run Title
Date
Distance
Calories
Duration
Elevation
Pace
If STRAVA run, delete run is not available
STRAVA Run
Delete Run

WF7

Example Data


```
<TrainingCenterDatabase xmlns="http://www.garmin.com/xmlschemas/TrainingCenterDatabase/v2">
  <Activities>
    <Activity Sport="Running">
      <Id>2015-07-20T10:21:50.000Z</Id>
      <Lap StartTime="2015-07-20T10:21:50.000Z">
        <TotalTimeSeconds>559.0</TotalTimeSeconds>
        <DistanceMeters>1609.300048828125</DistanceMeters>
        <MaximumSpeed>11.599998474121094</MaximumSpeed>
        <Calories>807</Calories>
        <Intensity>Active</Intensity>
        <TriggerMethod>Distance</TriggerMethod>
        <Track>
          <Trackpoint>
            <Time>2015-07-20T10:21:51.000Z</Time>
            <Position>
              <LatitudeDegrees>32.719957</LatitudeDegrees>
              <LongitudeDegrees>-79.97398067</LongitudeDegrees>
            </Position>
            <AltitudeMeters>0.0</AltitudeMeters>
            <DistanceMeters>0.0</DistanceMeters>
            <SensorState>Present</SensorState>
          </Trackpoint>
          <Trackpoint>
            <Time>2015-07-20T10:21:52.000Z</Time>
            <Position>
              <LatitudeDegrees>32.7199645</LatitudeDegrees>
              <LongitudeDegrees>-79.97396283</LongitudeDegrees>
            </Position>
            <AltitudeMeters>0.0</AltitudeMeters>
            <DistanceMeters>0.6000000238418579</DistanceMeters>
            <SensorState>Present</SensorState>
          </Trackpoint>
          <Trackpoint>
            <Time>2015-07-20T10:21:53.000Z</Time>
            <Position>
              <LatitudeDegrees>32.7199745</LatitudeDegrees>
              <LongitudeDegrees>-79.9739425</LongitudeDegrees>
            </Position>
            <AltitudeMeters>0.0</AltitudeMeters>
            <DistanceMeters>1.2000000476837158</DistanceMeters>
            <SensorState>Present</SensorState>
          </Trackpoint>
```


Example TCX Data

```
{
    "TrainingCenterDatabase": {
        "Activities": {
            "Activity": {
                "Id": "2015-07-20T10:21:50.000Z",
                "Lap": [
                    {
                        "TotalTimeSeconds": "559.0",
                        "DistanceMeters": "1609.300048828125",
                        "MaximumSpeed": "11.599998474121094",
                        "Calories": "807",
                        "Intensity": "Active",
                        "TriggerMethod": "Distance",
                        "Track": {
                            "Trackpoint": [
                                {
                                    "Time": "2015-07-20T10:21:51.000Z",
                                    "Position": {
                                        "LatitudeDegrees": "32.719957",
                                        "LongitudeDegrees": "-79.97398067"
                                    },
                                    "AltitudeMeters": "0.0",
                                    "DistanceMeters": "0.0",
                                    "SensorState": "Present"
                                },
                                {
                                    "Time": "2015-07-20T10:21:52.000Z",
                                    "Position": {
                                        "LatitudeDegrees": "32.7199645",
                                        "LongitudeDegrees": "-79.97396283"
                                    },
                                    "AltitudeMeters": "0.0",
                                    "DistanceMeters": "0.6000000238418579",
                                    "SensorState": "Present"
                                },
                                {
                                    "Time": "2015-07-20T10:21:53.000Z",
                                    "Position": {
                                        "LatitudeDegrees": "32.7199745",
                                        "LongitudeDegrees": "-79.9739425"
```


Example JSON formatted data