

List of Needs and Features

1. They want a nice-looking site, with a clean light modern style, images that evoke swimming and competition.

(More like [Strava](<https://www.strava.com/features>) and less like

[Athletic.net]([https://www.athletic.net/TrackAndField/Division/Event.aspx?DivID=10000](https://www.athletic.net/TrackAndField/Division/Event.aspx?DivID=100004&Event=14)

4&Event=14)) It should be easy to find the features available for free and then have an obvious link to register for an account or log in. It should be fast and easily navigable.

2. The general public will be able to view all results (just the race distance, type and time).

These are public events and the results should be freely available. They should be able to search by athlete name, team, coach or possibly event date and location. Not sure if they want to be able to filter or drill down as Athletic.net does. They're not trying to organize by state, school, etc. Athletes are athletes and it doesn't matter where they're competing. This is completely general, but only for swimming.

3. Logins will be required for viewing statistics and all other advanced features. We eventually plan to offer paid plans for accessing these advanced features. They'll be free initially and we'll transition to paid plans once we get people hooked.

4. Admin logins are needed for entering new data. Only employees and contractors will be allowed to enter, edit or delete data.

5. "Standard" logins are fine. Use email (must be unique) for username and then require an 8+ character password. Will eventually need to confirm email to try to prevent some forms of misuse. Admins and contractors must have an offline confirmation by our employees and then the "super" admin adds them manually.

6. The core entity is the athlete. They are essentially free agents in the system. They can be a member of one or more teams at one time, then change at any time. Later when we want to have teams and do predictive analysis, we'll let the coaches assemble their own teams and add/remove athletes from their rosters.

7. The first stats we want are: 1) display PR's prominently in each race event, 2) show a historical picture/plot of performance, per race type and distance, 3) some measure of how they rank compared to other athletes, both current and historical, 4) something that shows how often they compete in each race event, i.e. which events are they competing in most frequently, and alternately, which events are they "avoiding"

8. Coaches can easily build elite teams based on records in the system. A coach can compare their team against other teams based on performance. If some results are unknown about the opposing team, the system should fill in the gaps with reasonable analysis.

9. We want the system to work for athletes at all levels, from high school teams to advanced teams. There will be a way to search and analyze results within a division. High school teams shouldn't have results lost in irrelevant results and so forth.

10. The purpose of this new system is to provide elite analysis at a low cost. All features should be implemented with standard calculations, APIs, and various algorithms. These scalable and reliable features will ensure a system that requires little maintenance and will be enjoyed for years to come.

11. A possible future feature is information about coaches. Some coaches have more success than others and this could be taken into account when comparing teams.