

Name: Thomas Lillis

Title: Trail Running Pal

Project Summary: A program for logging trail runs to view progress and set goals. Also used for coaches to monitor and organize their runners.

Project Requirements:

<u>UR-ID</u>	<u>Requirement</u>
UR-01	Athlete/Coach, can create an account
UR-02	Athlete can input run data (miles, mile times, vertical gain, etc.)
UR-03	Athlete/Coach can view run stats calculated from run data
UR-04	Athlete/Coach can visualize run data with graphs
UR-05	Athlete/Coach can view historical overall stats
UR-06	Athlete/Coach can view historical visualizations
UR-07	Athlete/Coach can set goals for Athlete
UR-08	Coach can add Athlete to team
UR-09	Coach can create team
UR-10	Coach can browse Athletes in team
UR-11	Coach can compare (numerically and graphically) Athletes

UI Mockups:

Trail Running Pal

Login

Username

Password

☒ Athlete
 ☐ Coach

Create Account

Login

Login brings user to either Athlete page or Coach page depending on which is selected. If Create account is selected account will be made with username and password and user will be brought to correct page.

Athlete Page

Import

Previous Runs

Date	Milage	Avg Pace	Vertical Gain
10/15/18 at 7:03 AM	13.7 Miles	10.4 min/mile	1,347 ft
10/14/18 at 7:53 AM	1.7 Miles	5:40 min/mile	23 ft
10/13/18 at 6: 59AM	22.1 Miles	11.0 min/mile	2,367 ft
10/12/18 at 6: 59AM	4.3 Miles	7.1 min/mile	2,367 ft
10/11/18 at 6: 59AM	7.4 Miles	7.5 min/mile	2,367 ft

Overall Statistics

Total Miles: 435	Goal: 1000	Best 1 Mile: 5:34 mins	Goal: 4:59 mins
YTD Miles: 435	Goal: 1000	Best 2 Mile: 12:54 mins	Goal: 11:30 mins
Last Year: 0	Goal: 0	Best 5K: 19:30 mins	Goal: 18:59 mins
Avg. Pace: 9.0 m/mil	Goal: 8.0 m/mil	Best 10K: 41:13 mins	Goal: 39:59 mins
YTD Pace: 9.0 m/mil	Goal: 8.0 m/mil	Best 13 Mile: 1:37:54	Goal: 1:29:59
Total Ascent: 23,467 ft	Goal: 100,000 ft	Best 26 Mile: 4:01:52	Goal: 3:00:00
YTD Ascent: 23,467 ft	Goal: 100,000 ft	Best 50 Mile: 8:30:30	Goal: 8:00:00

Athlete can import a run by clicking import button. Can change goals by clicking on goal number and typing new goal. Can see previous runs by clicking on items in table. Table is scrollable.

Run Page

Run Statistics

Miles: 6
Time: 1:00:00
Avg Pace: 10 min/mile
Route Name: Green Mountain

Avg Heart Rate: 150
Max Heart Rate: 180
Fastest Mile: 10 min
Calories: 700

Back

Previous Attempts at Route

Date	Time	Avg Pace	Improvement
10/15/18 at 7:03 AM	1:00:00	10.0 min/mile	1:00
10/14/18 at 7:53 AM	1:01:00	10.1 min/mile	1:00
10/13/18 at 6: 59AM	1:02:00	10.2 min/mile	1:00
10/12/18 at 6: 59AM	1:03:00	10.3 min/mile	1:00
10/11/18 at 6: 59AM	1:04:00	10.4 min/mile	1:00

Visualizations

Graph of Time Over Time

Graph of Speed Over Time

Graph of Avg Hrt Rate Over

Fastest Mile Over Time

Can see run data on run page.

Athlete Page

Import Data

Route Name

Miles

Time

Elevation Gain

Max Heart Rate

Fastest Mile

Avg. Heart Rate

Route Name

Calories

Import

Import data on import page.

Coach Page

Create TeamAdd Athlete

Athletes

Name	Total Milage	Avg Pace	Total Vertical Gain
Tom	13.7 Miles	10.4 min/mile	1,347 ft
Sarah	1.7 Miles	5:40 min/mile	23 ft
Paul	22.1 Miles	11.0 min/mile	2,367 ft
Mary	4.3 Miles	7.1 min/mile	2,367 ft
Lucky	7.4 Miles	7.5 min/mile	2,367 ft

Teams

Name	Total Milage	Avg Pace	Total Vertical Gain
Cool Team	134.7 Miles	10.4 min/mile	6,347 ft
Awesome Team	890.2 Miles	5:40 min/mile	63 ft
The Best Team	432.1 Miles	11.0 min/mile	5,367 ft
Second Best Team	123.3 Miles	5.1 min/mile	3,367 ft
Team Cool Cats	89.4 Miles	17.5 min/mile	6,367 ft

Coach can see Athletes and teams they manage. Can add Athlete by name entry (looks up in database of users). Can create new team. Can click on Athletes to view athlete page or team page to view team page.

Team Page

Add Athlete

Previous Runs

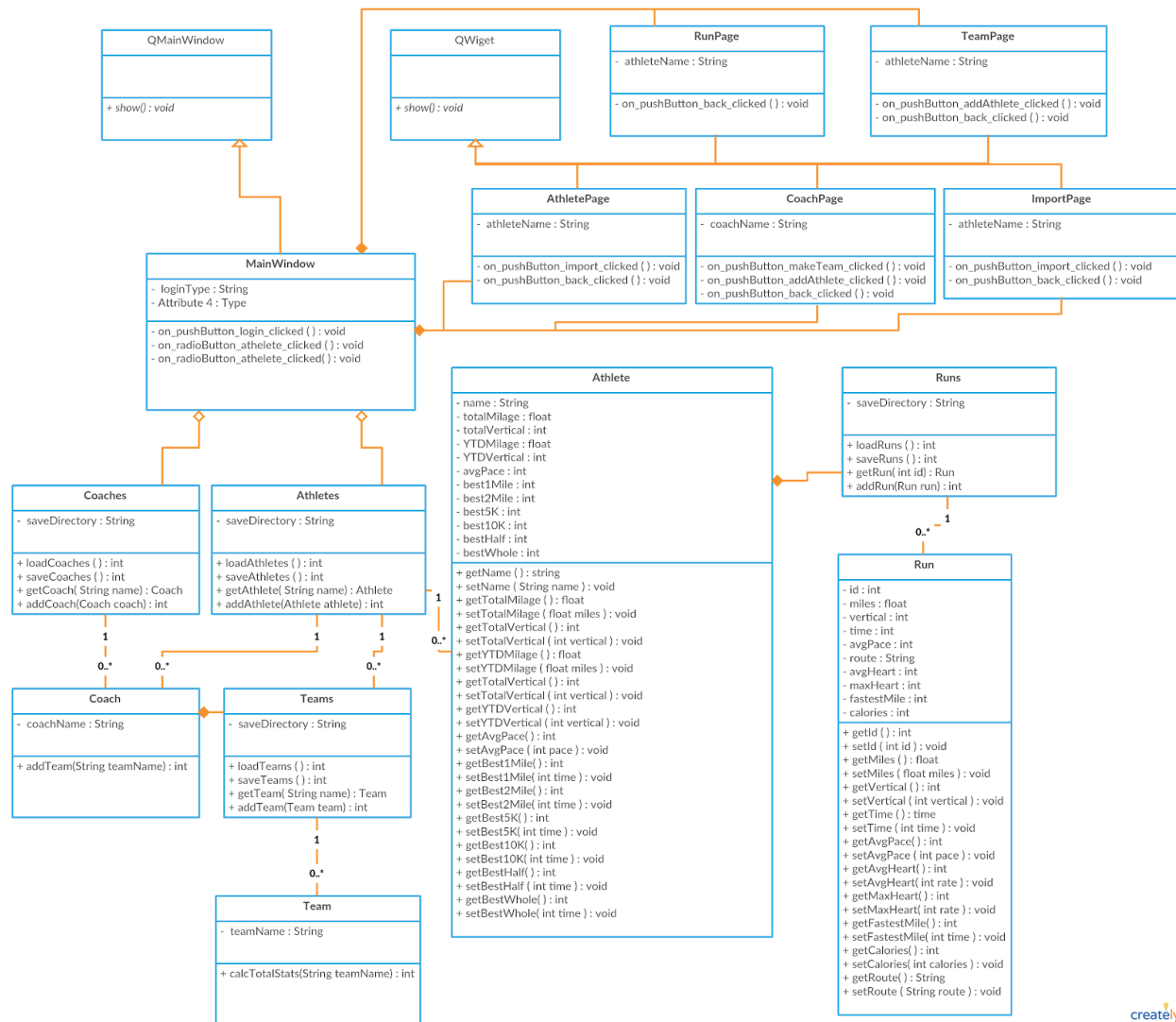
Date	Name	Milage	Avg Pace	Vertical Gain
10/15/18 at 7:03 AM	Tom	13.7 Miles	10.4 min/mile	1,347 ft
10/14/18 at 7:53 AM	Paul	1.7 Miles	5:40 min/mile	23 ft
10/13/18 at 6: 59AM	Mary	22.1 Miles	11.0 min/mile	2,367 ft
10/12/18 at 6: 59AM	Sarah	4.3 Miles	7.1 min/mile	2,367 ft
10/11/18 at 6: 59AM	Lucky	7.4 Miles	7.5 min/mile	2,367 ft

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Can see team overall stats. Can see Athletes on teams workouts. Can click on run to see more run data.

Class Diagram:



Note: QMainWindow and QWidget are classes from Qt framework so do not have members or functions. UI objects are stored in .ui files each “page” only has functions for interacting with the interface. Will need to add more interaction functions when I get more comfortable with the Qt framework. Do not have design patterns incorporated yet.