Claire Connachan
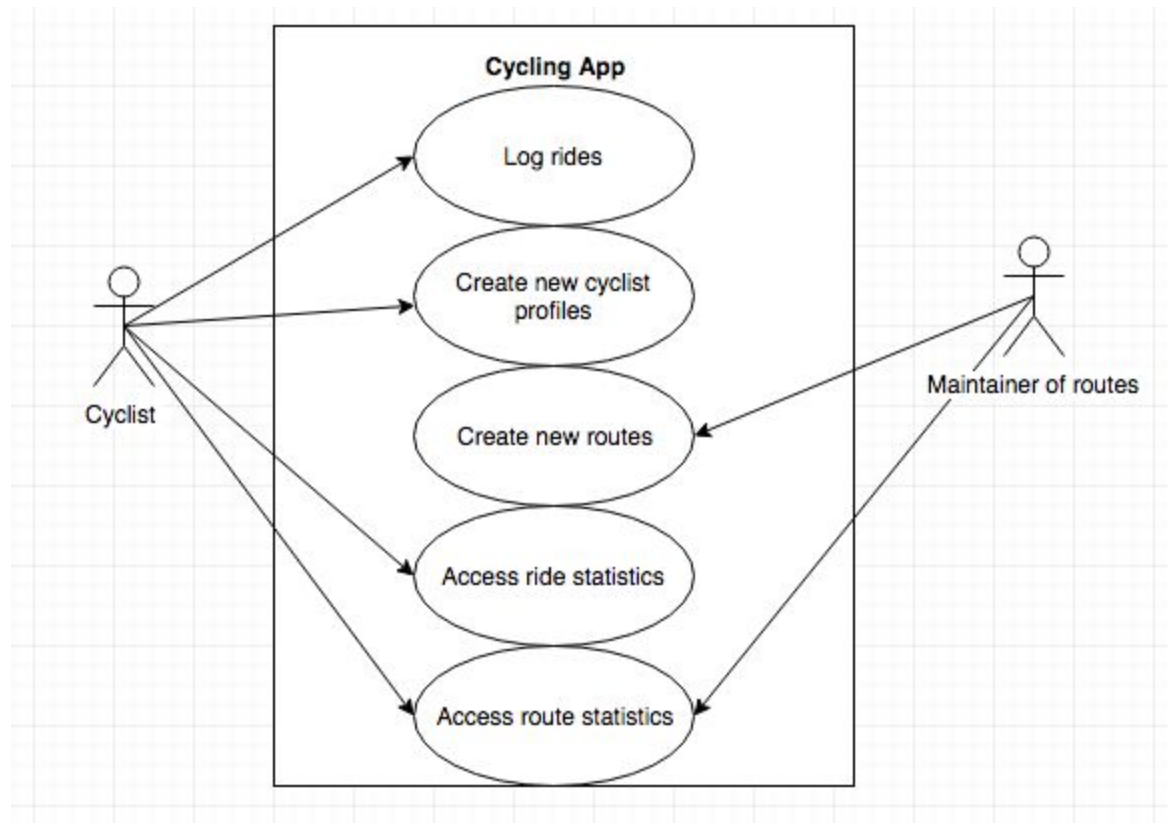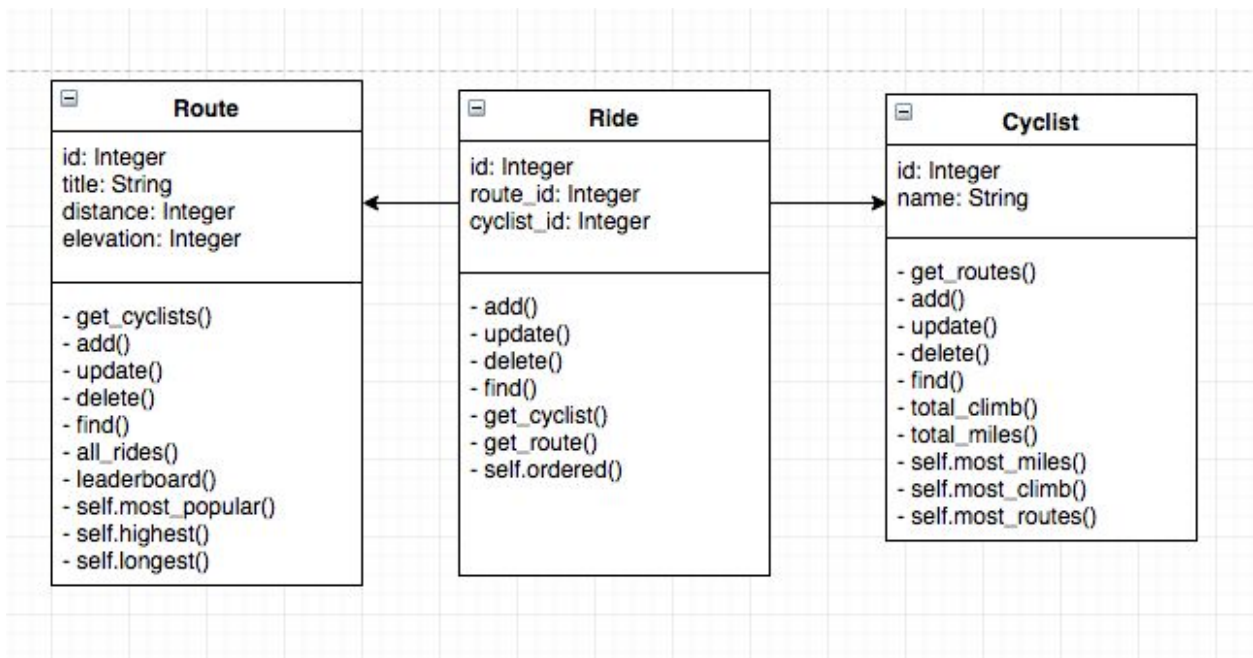**CodeClan Cohort - E20**

Evidence for Analysis and Design Unit
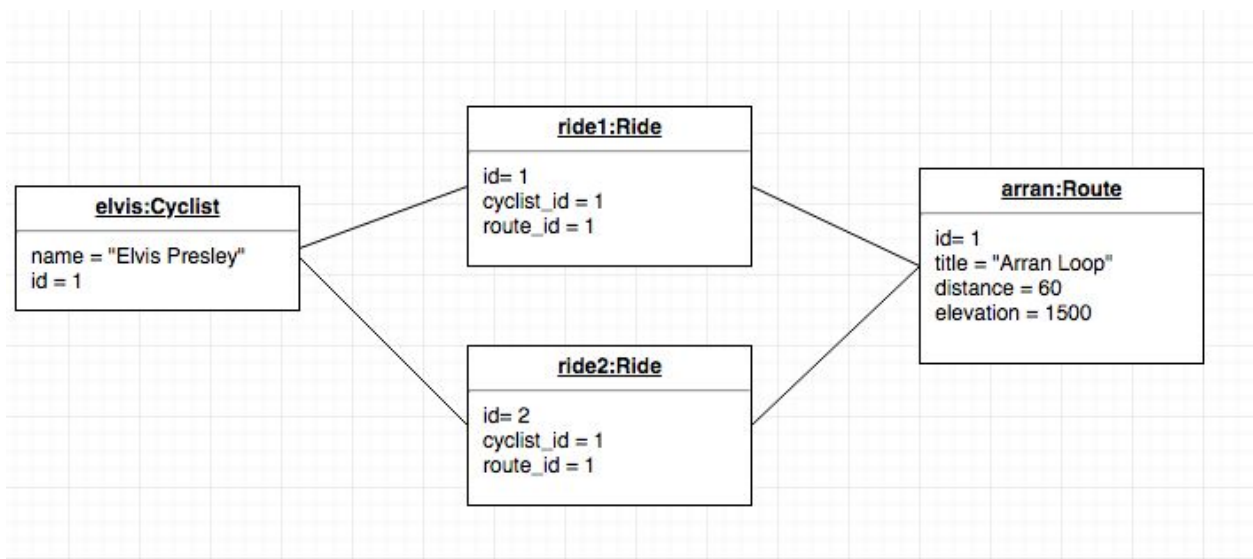
A.D 1 - A Use Case diagram

A.D 2 - A Class diagram

Route

id: Integer
title: String
distance: Integer
elevation: Integer

- get_cyclists()
- add()
- update()
- delete()
- find()
- all_rides()
- leaderboard()
- self.most_popular()
- self.highest()
- self.longest()

Ride

id: Integer
route_id: Integer
cyclist_id: Integer

- add()
- update()
- delete()
- find()
- get_cyclist()
- get_route()
- self.ordered()

Cyclist

id: Integer
name: String

- get_routes()
- add()
- update()
- delete()
- find()
- total_climb()
- total_miles()
- self.most_miles()
- self.most_climb()
- self.most_routes()

A.D 3 - An Object diagram

elvis:Cyclist

name = "Elvis Presley"
id = 1

ride1:Ride

id= 1
cyclist_id = 1
route_id = 1

ride2:Ride

id= 2
cyclist_id = 1
route_id = 1

arran:Route

id= 1
title = "Arran Loop"
distance = 60
elevation = 1500

A.D 4 - An Activity diagram

A.D 5 - An Inheritance diagram

A.D 6 - Produce an Implementations Constraints plan

Cycle ride logging app		
Topic	**Possible effect of constraint on product**	**Solution**
Hardware and software platforms	Building with an older macbook - build may take longer due to processor speeds etc	Ensure code is quick and efficient, keep solutions simple.
Performance requirements	Data cannot be accessed without internet connection	Ensure data is cached
Usability	Different devices have different screen requirements	Use a responsive design
Usability	Text could be difficult to read for users	Ensure that font is easily readable and colour scheme is accessible
Budgets	No budget allocated means that technologies and frameworks are limited	Work with open source technologies and credit where appropriate
Time limitations	Project functionality may not be complete with only one week for project	Complete project MVP as priority, work to MoSCoW principles
Persistent storage and transactions	Failure to store data if given incorrect datatypes	Ensure code functionality accounts for edge cases and provides user with error messages to rectify issue