

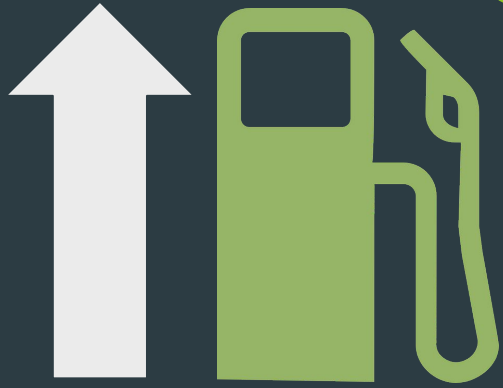
# The *Green Gas Mileage Calculator*

A presentation by the members of 45mph

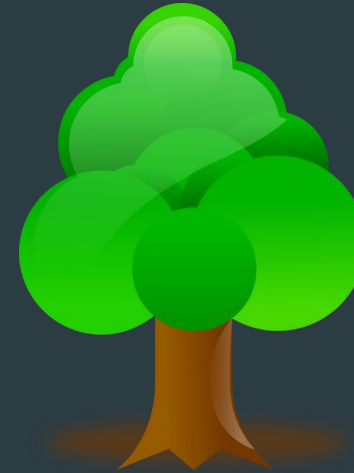
# 45mph is...

Name	Role	Initials
CW Ellis	Project Manager	CW
Rahul Chari	Scrum Master	RC
Kieran Ford	Development Team Member	KF
David Mendez	Development Team Member	DM

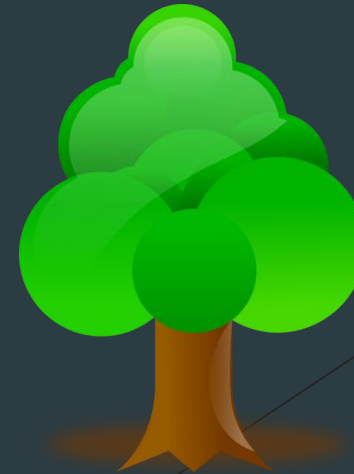
# *The Green Gas Mileage Calculator:* Our Product Vision



Impacts



Saves

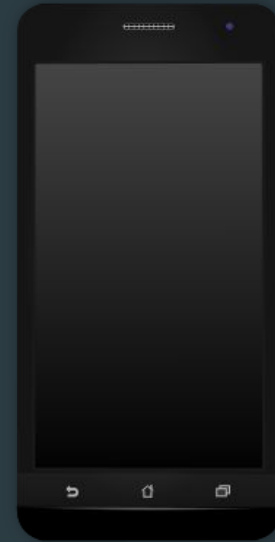


# *The Green Gas Mileage Calculator:* Our Product Vision

For



We propose



# The *Green Gas Mileage Calculator*: User Stories

1. As an environmentally-conscious driver, I want to track my impact on the environment so that I know the effects of my fuel usage.
2. As an environmentally-conscious driver, I want to know ways in which I could improve my driving to reduce my fuel usage so that I may reduce my emissions.
3. As someone who drives multiple cars regularly, I need to have a means of tracking multiple cars' information so that my cars' records are actually separable.

# The *Green Gas Mileage Calculator*: Our Features

- ▶ Environmental Impact
- ▶ Driving Suggestions
- ▶ Vehicle Profiles
- ▶ Standard Features of Gas Mileage Apps such as...
  - ▶ A basic fuel mileage calculator with units mpg and km/l
  - ▶ Fuel usage and cost calculatorsRunning fuel economy averages for each vehicle
  - ▶ Tracks distance travelled during separate trips
  - ▶ Detailed, long-term reports of gas mileage



# Acceptance Criteria Explained

1. As an environmentally-conscious driver, I want to track my impact on the environment so that I know the effects of my fuel usage.
  - 1.1. Emissions will be calculated using well-studied, accurate methods
  - 1.2. Once fuel consumption has been calculated for a trip, this amount of fuel should be automatically incorporated into the environmental impact calculation
  - 1.3. At the end of a trip, user should be asked if they want to see the impact of said trip
  - 1.4. A log of impact data should be available as an option on the app's home menu
  - 1.5. The list of impact data should be itemized by trip
2. As an environmentally-conscious driver, I want to know ways in which I could improve my driving to reduce my fuel usage so that I may reduce my emissions.
  - 2.1. Once Environmental Impact Tracking data is calculated for a trip, the system should automatically look for ways in which the user could have reduced their gas consumption during said trip
  - 2.2. Suggestions should include smoother acceleration
  - 2.3. Suggestions should include driving less distance
  - 2.4. Suggestions should include driving at the speed limit
  - 2.5. Suggestions should be displayed to the user in a separate text box or screen that they can leave to view the recorded metrics for their trip
  - 2.6. A map API will be used to calculate the various suggestions and display them



# The Product Backlog

Priority	Item #	Description	Est	By	Spr
<i>Very High</i>					
	-	<i>UX Design</i>	-	-	-
	1	Decide on UX library	5	CW	1
	2	Integrate UX library	2	RC	1
	3	Design Main and Feature Menus	2	CW	1
	4	Implement Main and Feature Menus	13	CW, KF	1
	5	Integrate all features into their respective Menus	5	CW	1
	-	<i>Environmental Impact Tracking</i>	-	-	-
	6	Research environmental impact of automobiles with a focus on measuring emissions	3	CW	2
	7	Find source for emissions of specific vehicles	1	RC	2
	8	Implement Environment Impact calculation	2	CW	2



# Dividing PBIs according to sprint

## *Sprint 1*

Feature/Story	Pts.	Assigned
UX Design	27	RC, CW, KF
Digital Odometer	11	CW, KF
Maps API	26	RC, CW
Fuel Cost Calculator	9	KF
Fuel Consumption Log	4	CW
Hypothetical Buyable Fuel Calculator	7	DM
Hypothetical Fuel Cost Calculator	7	KF
Total:	104	

## *Sprint 2*

Feature/Story	Pts.	Assigned
Environmental Impact Tracking	12	RC, CW
Driving Suggestions	25	RC, KF, DM
Gas Mileage Calculator	3	DM
Implement Vehicle Profiles	10	CW, KF, DM
Maintain Data Logs	23	RC, CW, KF, DM
Personalized Reports	12	RC, CW, DM
Total:	88	

*Velocity Estimate:*

*Capacity Estimate:*

# Layered System Architecture

## Presentation Layer

Menus	Calculator Interfaces	Notifications	Trip Data Presentation	Vehicle Profile Creation	Vehicle Profile Display	Log Display Suggestion Display
-------	-----------------------	---------------	------------------------	--------------------------	-------------------------	--------------------------------

## Higher Features

Emissions Database Query	Impact Calculation from Odometer and/or Usage	Fuel Usage and Odometer Lookup	Speed Limit Checks	Acceleration Checks	Optimize Route Distance
--------------------------	-----------------------------------------------	--------------------------------	--------------------	---------------------	-------------------------

## Lower Features

Automatic Digital Odometer	Fuel Usage Tracking	Gas Mileage Calculation	Fuel Cost Calculation	Buyable Fuel Calculation
----------------------------	---------------------	-------------------------	-----------------------	--------------------------

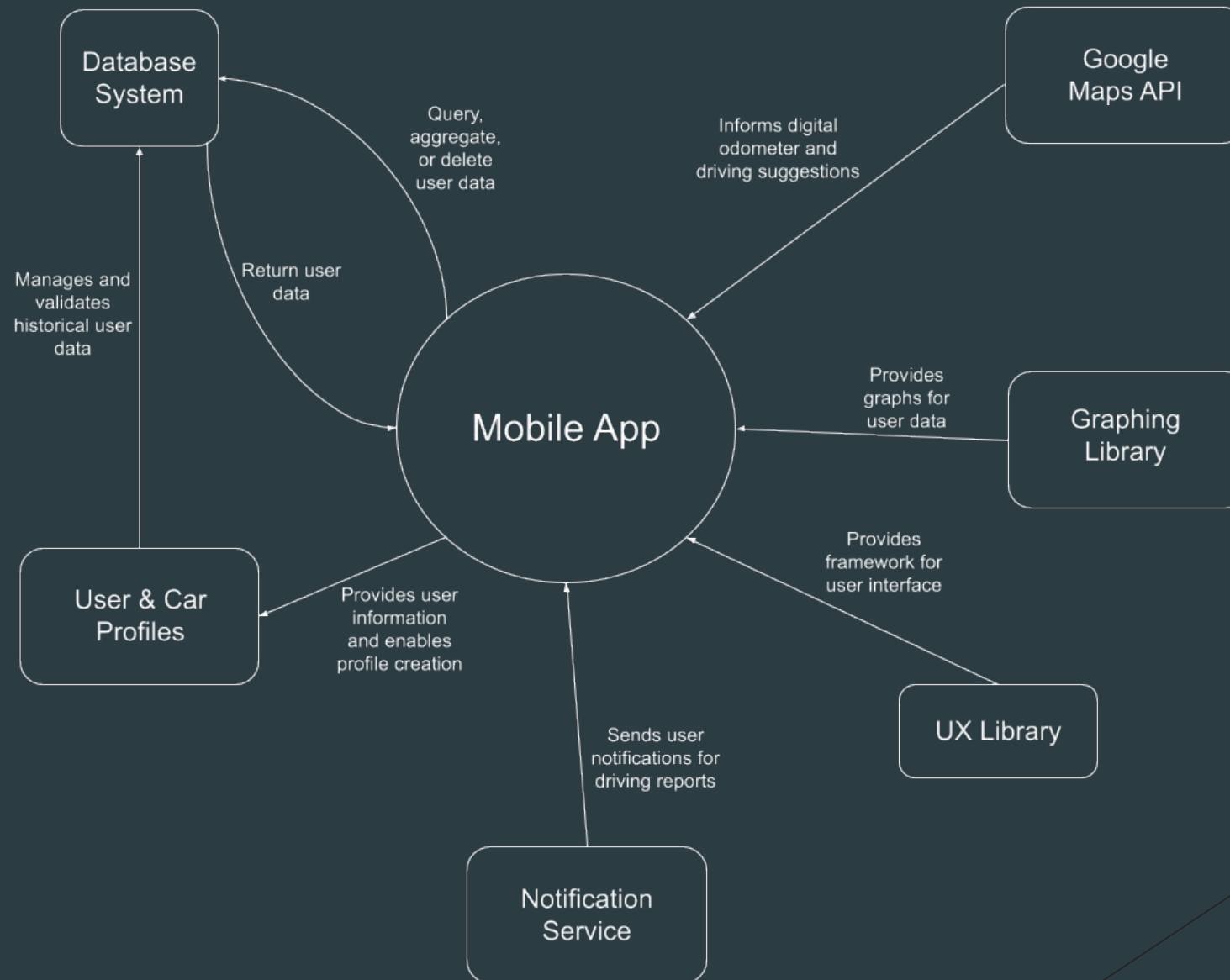
## Internal Data

Fuel Consumption Log Storage	Environmental Impact Log Storage	Vehicle Profile Data Storage	Performance Logs	Report Logs
------------------------------	----------------------------------	------------------------------	------------------	-------------

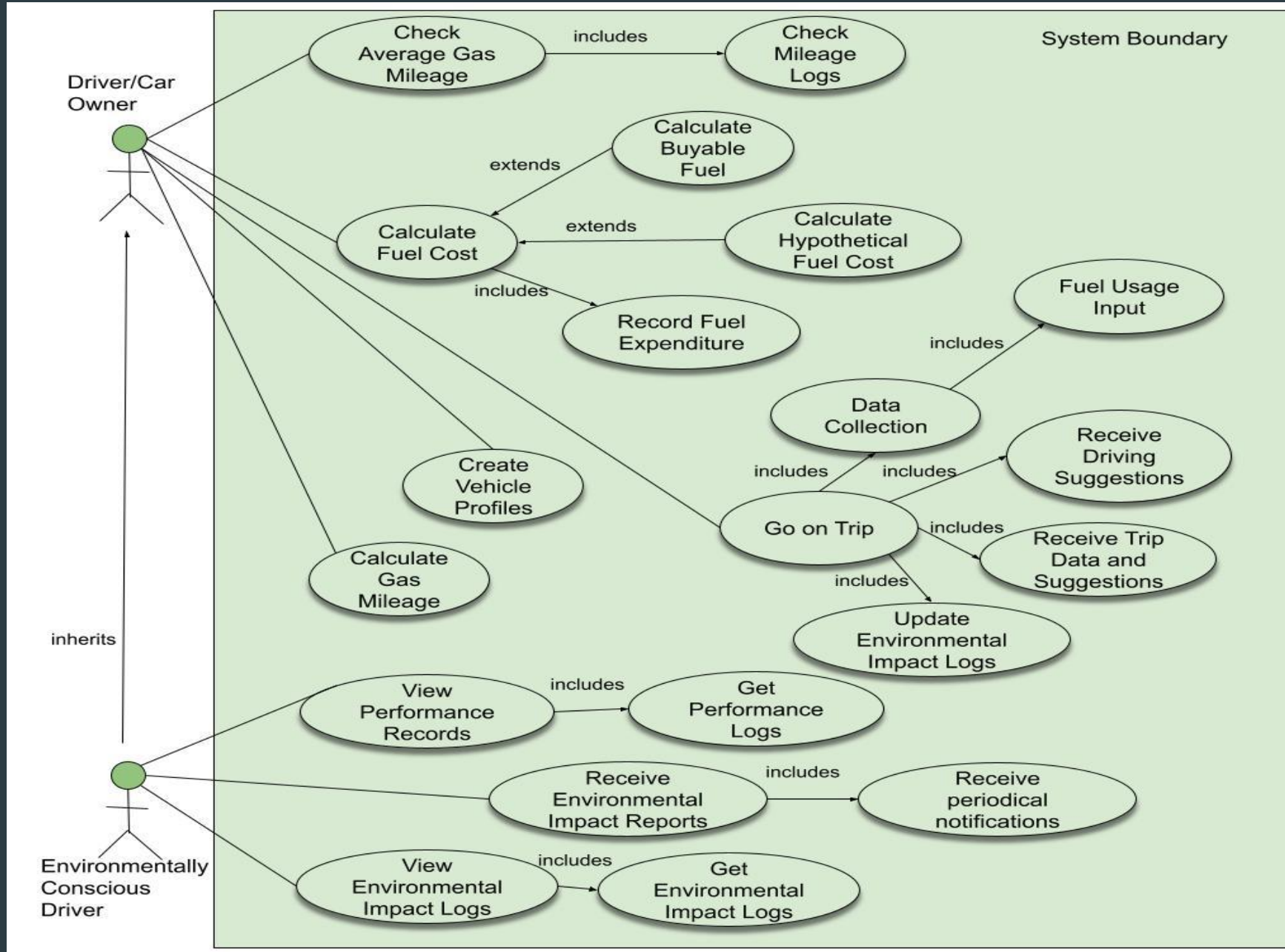
## External Data and Services

Google Maps Associated APIs	UX Library	Emissions Database Queries	Maps Associated API Calls
-----------------------------	------------	----------------------------	---------------------------

# System Context Model



# Use Case Diagram



## Concluding Remarks



***45mph***