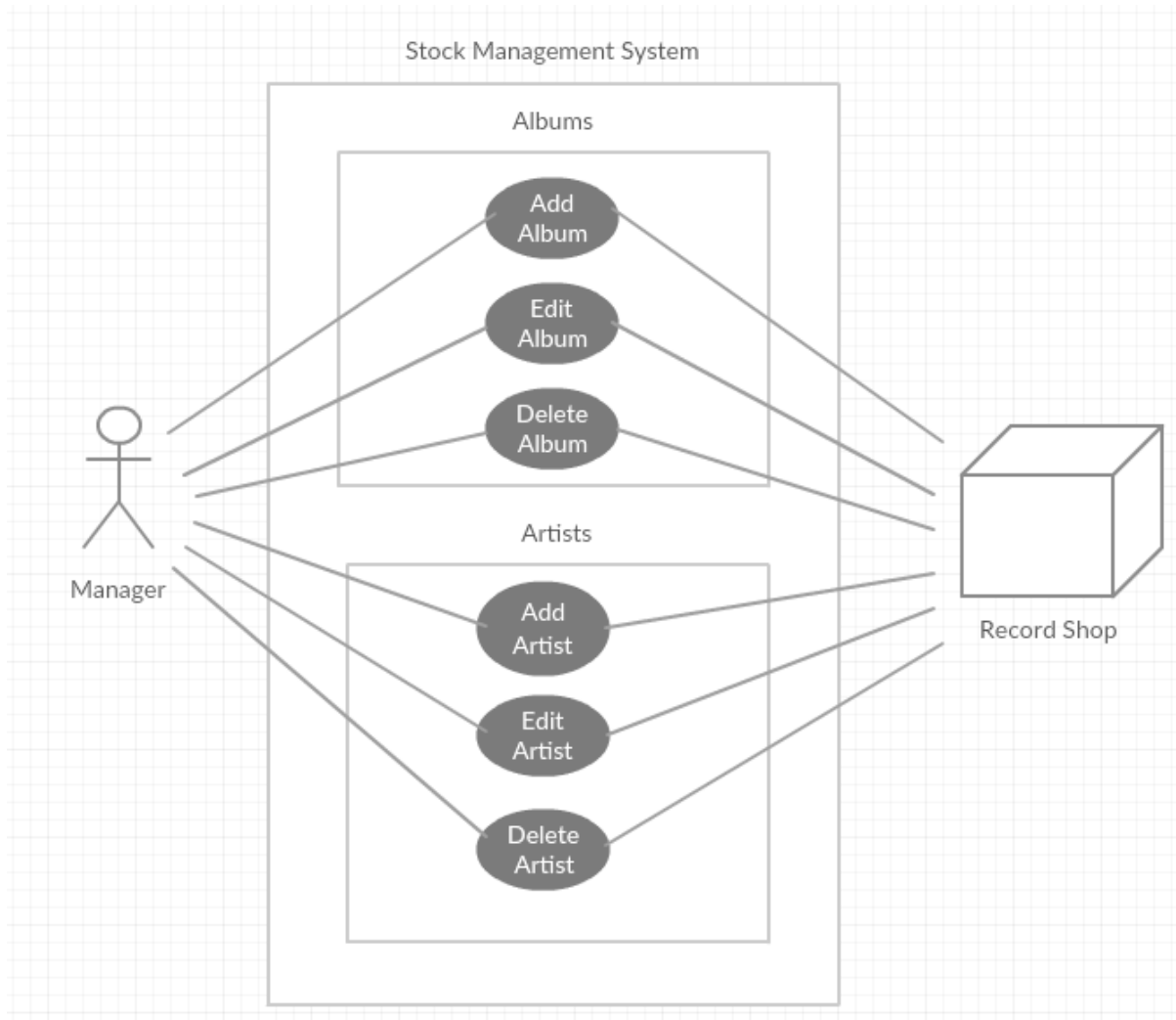**Analysis and Design Evidence**
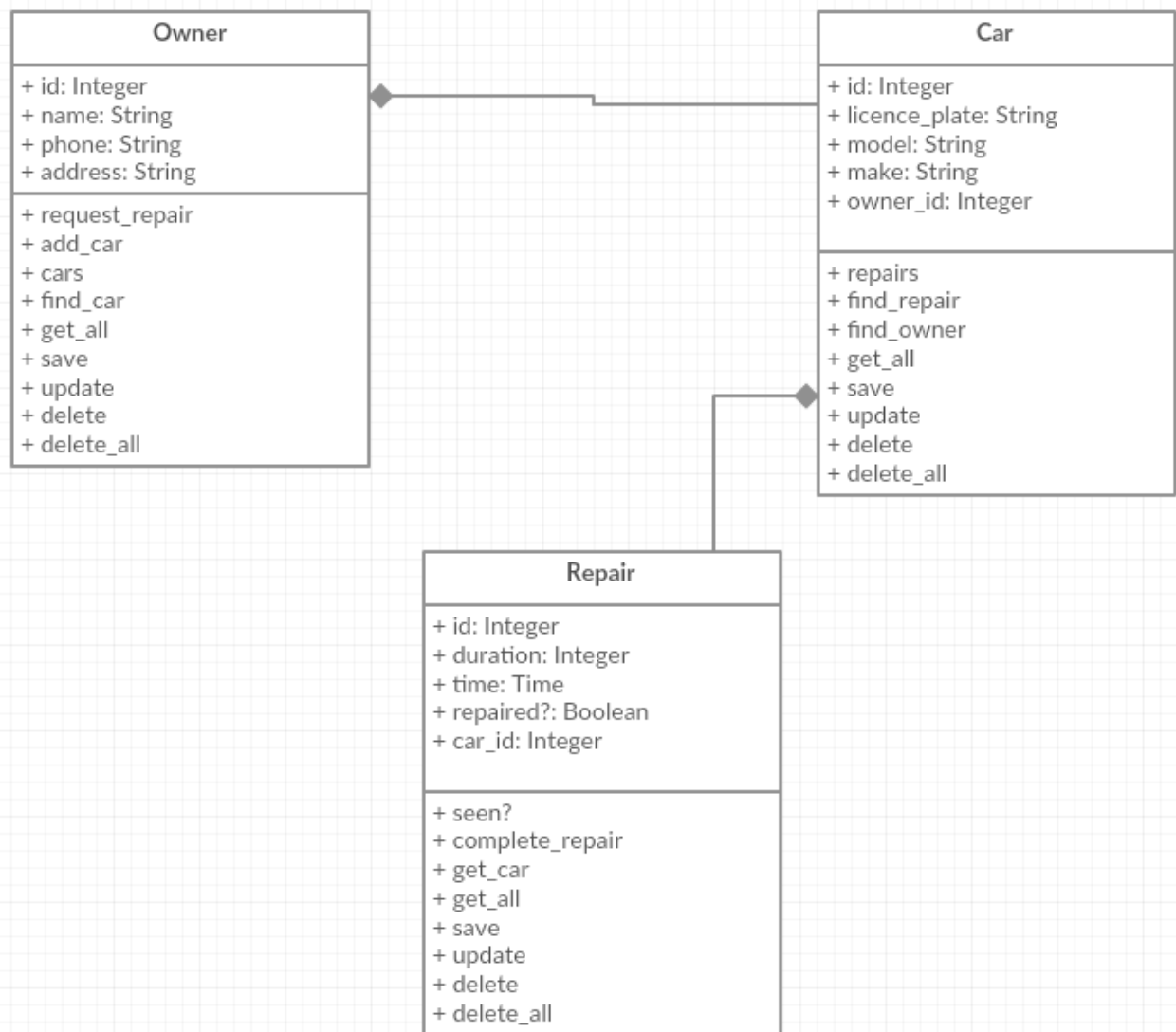
Matthew Shield

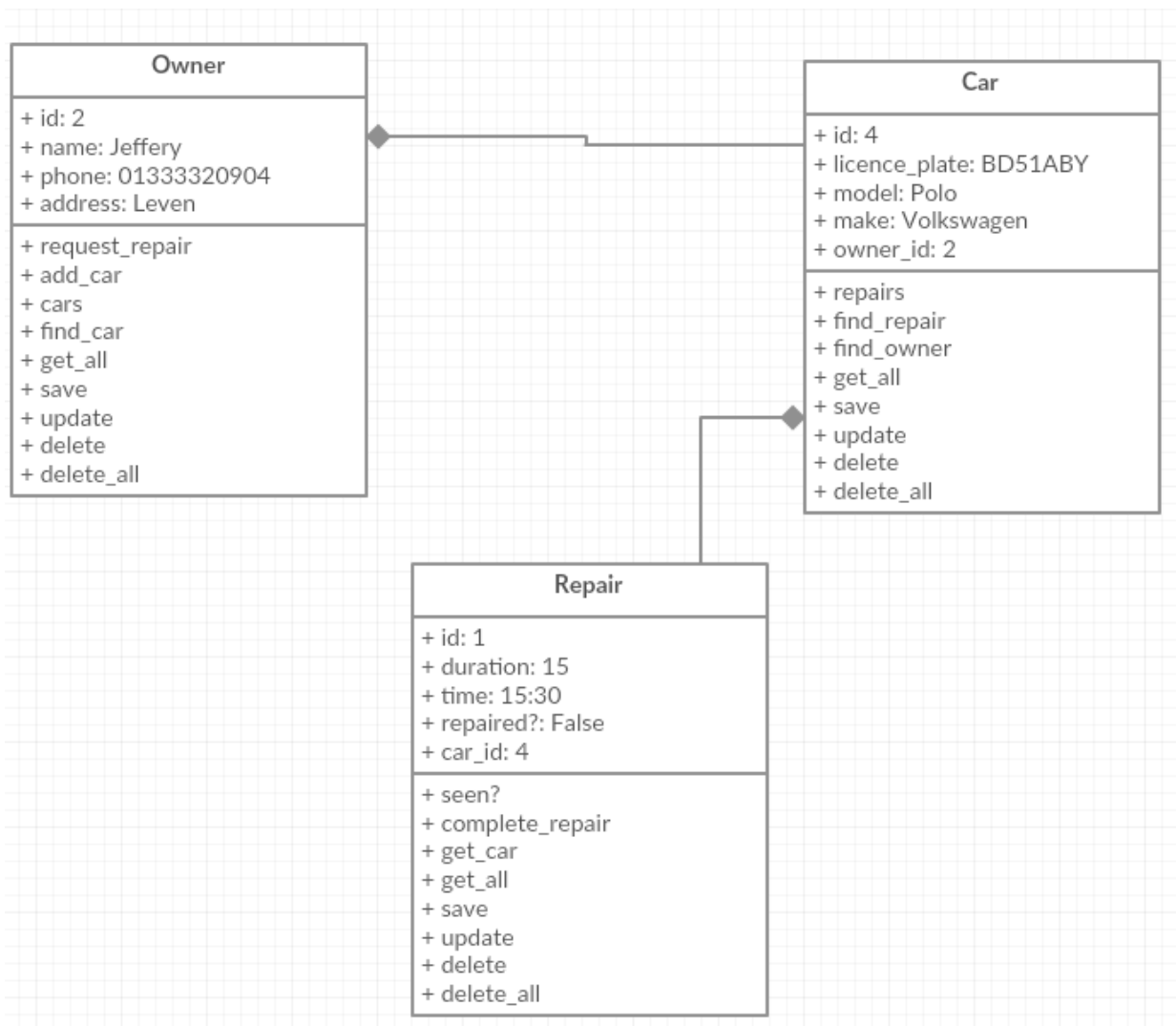**27th October 2017**

A.D 1 – Use Case Diagram
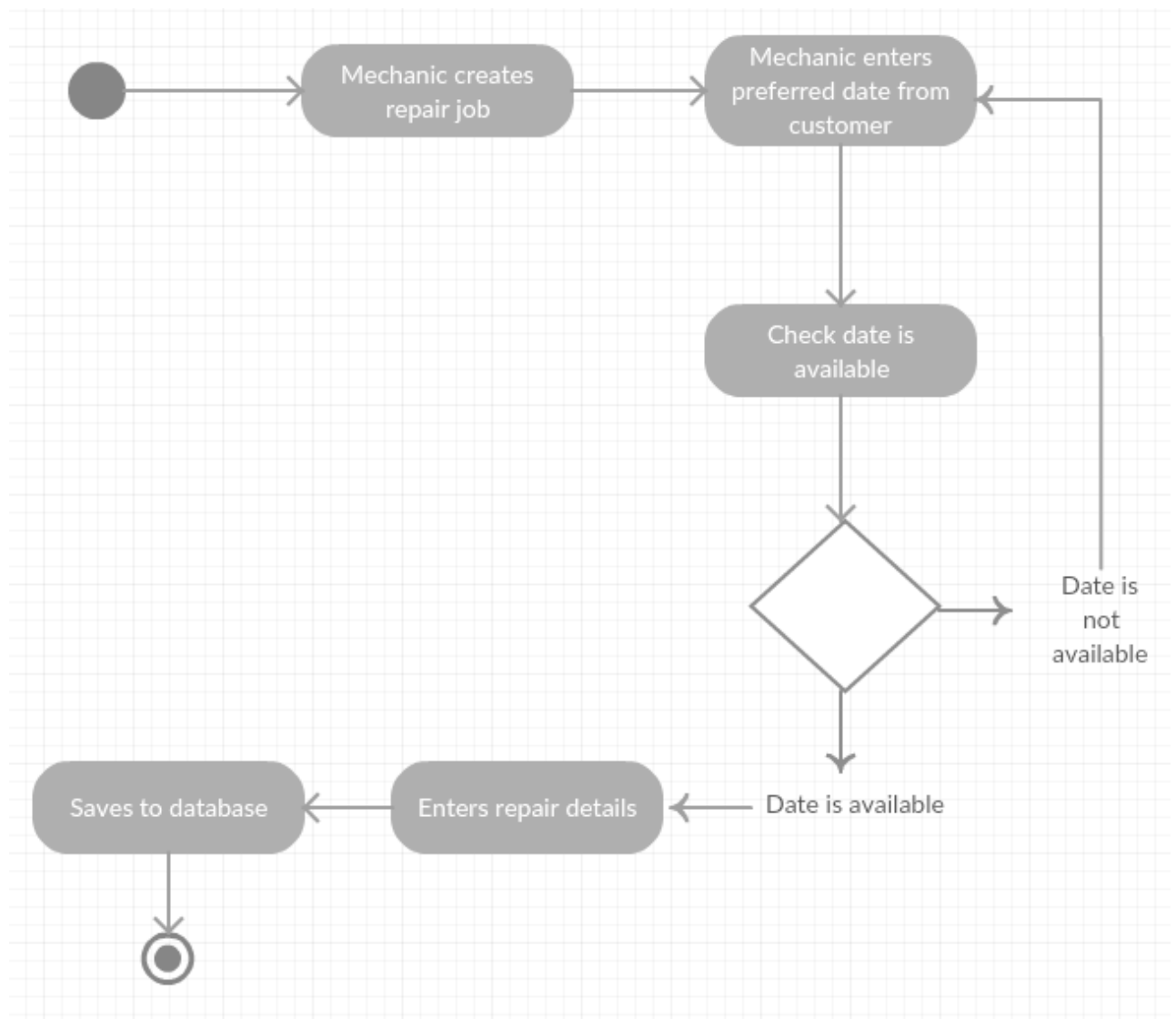

A.D 2 – Class Diagram

AD. 3 – Object Diagram

Owner

+ id: 2
+ name: Jeffery
+ phone: 01333320904
+ address: Leven

+ request_repair
+ add_car
+ cars
+ find_car
+ get_all
+ save
+ update
+ delete
+ delete_all

Car

+ id: 4
+ licence_plate: BD51ABY
+ model: Polo
+ make: Volkswagen
+ owner_id: 2

+ repairs
+ find_repair
+ find_owner
+ get_all
+ save
+ update
+ delete
+ delete_all

Repair

+ id: 1
+ duration: 15
+ time: 15:30
+ repaired?: False
+ car_id: 4

+ seen?
+ complete_repair
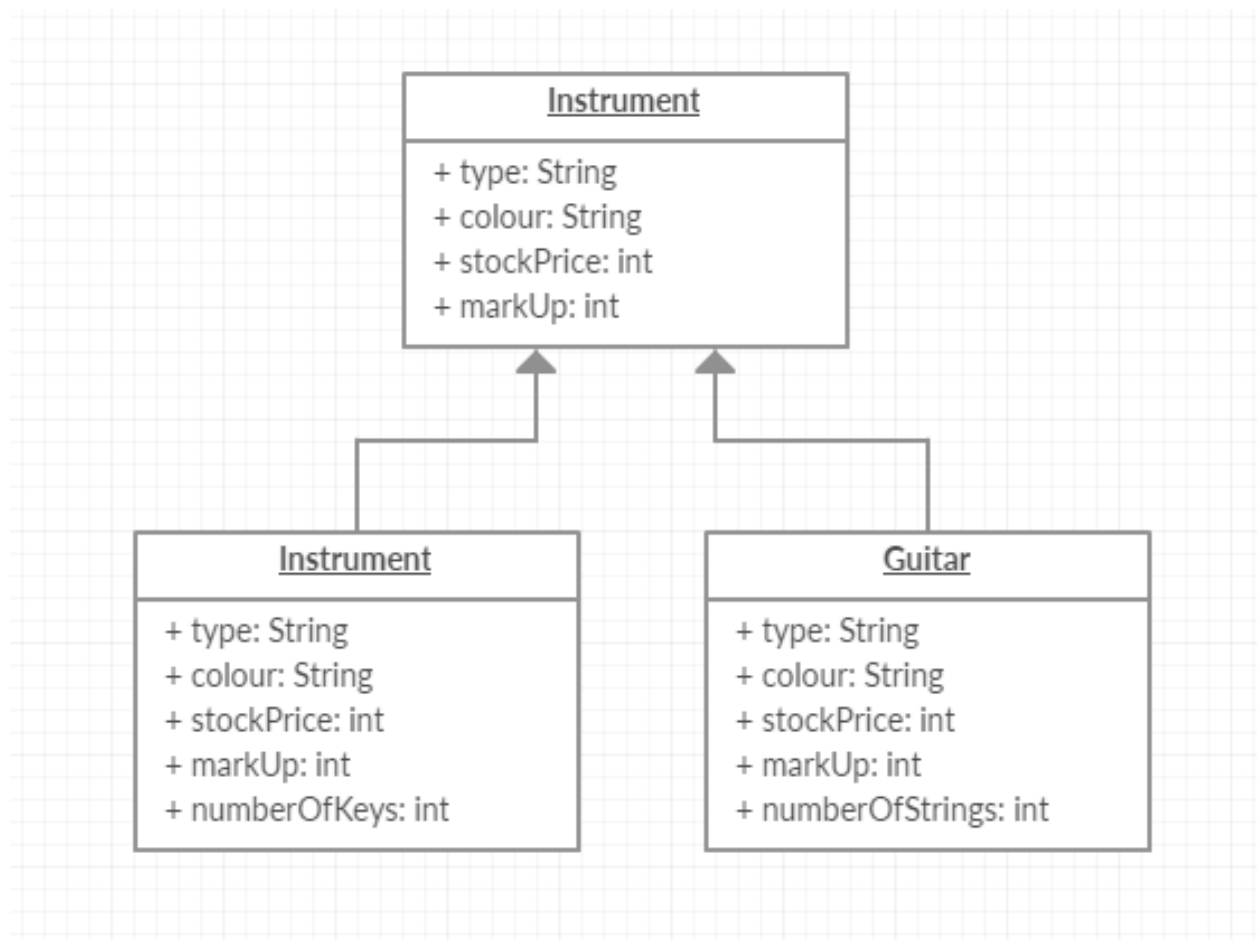+ get_car
+ get_all
+ save
+ update
+ delete
+ delete_all

AD. 4 – Activity Diagram

AD. 5 – Inheritance Diagram

AD. 6 – Implementations Constraint Plan

Topic	Possible Effect of Constraint on Product	Solution
Hardware and software platforms	Only compatible with Android devices. This would restrict users from using iOS devices and desktop computers with this app, restricting the total potential user base.	Build a follow up app that works on iOS and desktop devices.
Performance requirements	Slow internet speed would increase the time taken to load game assets such as music and images when downloading the app.	Compress audio and images to reduce file size.
Persistent storage and transactions	Device may have limited capacity, or may have needed storage filled by other data or apps. This will stop the app from saving persistent user data.	The use of cloud storage will negate the need for space on the device beyond the initial installation.
Usability	Style/CSS does not appropriately scale to larger screens.	Use a flexible, responsible design when designing the interface.
Budgets	Limited budget means art assets such as sound and images may not be created by a professional artist, as they cannot be afforded.	Focus on core usability to get largest return on investment and keep a minimalist design to avoid focus on unprofessional assets.
Time	The game does not have all desired features such as overall game tracking, leading to less user satisfaction.	Focus on the MBP and appropriate time management.