PART C -DEVELOPMENT

CET213 – Web and Mobile development

Lewis John Allan

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PART C – Development Documentation

1.0 - Analysis

To create part A and part B, the method to development had to be assessed. To begin with web/hybrid development knowledge was already at a decent skill level, this is the likes of responsive web design using development tools like bootstrap and framework7. A new approach taught for development was going native. This is where you use tools such as phone gap, to convert your files to produce a file more compatible with mobile devices, such as an .apk file for an android device.

What this means, is the website created will be converted for a device that has a different OS (operating system). This puts more emphasis on responsive design, which is why the likes of bootstrap and framework7 are excellent tools.

To make the change from a website into something that will work when converted, it is best to make the website responsive.   Kyrim, J. (2014), mentions how these techniques are important because the number of different types of browsers and devices web designs need to support is only growing larger.

So why do this? What are the benefits? Devices have functionality that you may need to use, such as a camera, Bluetooth and so on. This is much more accessible if the file is native to the device in use. Using tools such as Phone Gap (PG) allow for files to be package and made into one file usable on a device.

Flirtman, M. (2010), in his book on programming the mobile web has his verdict on going native with development for web. He believes that the mobile web offers us a great multi-device application platform, which includes local applications that do not require an always established internet connection to the web with URLs and browsers, he states: '*Native Mobile Applications will kill the mobile web*.' This interlinks well with what Kyrim, J (2014), had to say on the importance of adapting different techniques when developing, as the demand for compatibility for mobiles and the mobile web is ever growing.

The techniques mentioned by Kyrim, J. are quite broad in all honesty. To make a responsive website, you need to be using Javascript and CSS and HTML5 and this can get quite daunting. Thankfully, boilerplates and development tools such as bootstrap and framework7 are available for use, where a great deal of the responsive side is already set up. This then makes the design part easier for the developer and the ability to troubleshoot errors, with such a strong following of developers in forums to share their knowledge of the tools and how they themselves may have overcome. This means that not only are you using tools to help develop web/mobile hybrids but a better chance of finding help along the way.

To make the jump from the web hybrid, there are tools available. Flirtman, M. (2010), mentions this in his book, and gives an example of such a tool, one of will be used for the end result in Part A of this project. The tool is 'Phone Gap' (www.phonegap.com). "Is an open source framework for creating mobile web applications in HTML and Javascript while still taking advantage of the core features of native applications in some platforms (Flirtman, M. 2010)." As mentioned before, this means that an android/IOS mobile phone may have the ability to use Bluetooth, so if the .io or .apk file was available, this would give added functionability to the app as oppose to what it would have gotten by just being a .html file on the web.

1.1 – Part A

1.1.1 – Design

Having looked and practiced development techniques, knowledge on the capabilities and potential of developing using Framework7 by using the kitchen sink example (http://framework7.io/kitchen-sink-material/), along with Node and various npm installs using the cmder command line tools, it was time to assess the client requirements of the project.

The end users need to be able to view bike information based on categories and to make and check bike safety. Along with information on the app and the developer. The first part was to look at navigation and different framework7 features that could be used.

From experience of mobile devices and a popular feature amongst developers is the menu option in the top of the app, three icon bars, many refer to as the burger glyphicon. Along with a back option to take the user to the most recent page, this was the desired navigational option. Having done some further research, the side panel menu looked particular user friendly and so this was added into the design of the app. The next thing to look at in design was how the information was to be presented. For bike information, having an image was a must, the rest of the data is quite quick and informative and needs to be separated, this was made into a system list with an image at the bottom.

The forms the user would interact with was the next focus point. On most mobile devices, tools like the slider for on/off are very popular so again this was implanted into the design as well as a form style found on the kitchen sink example page. The next part was presenting the data back to the user. These would be best done on one page, and separated from one another. Having looked at different ways to separate data, the data shown on cards would be best. Once all these pages and tools to use were decided, the next stage of the design process was the actual development of the appearance. This was done using wireframes, which is viewable on the next page.

With the app being developed on web to be later built into an .apk file, the style had to be consistent throughout with that of an android application. Referring back to an actual android device and its native features helped when designing the interface to the appearance evident in the wireframes in figure 1.1.1.1.
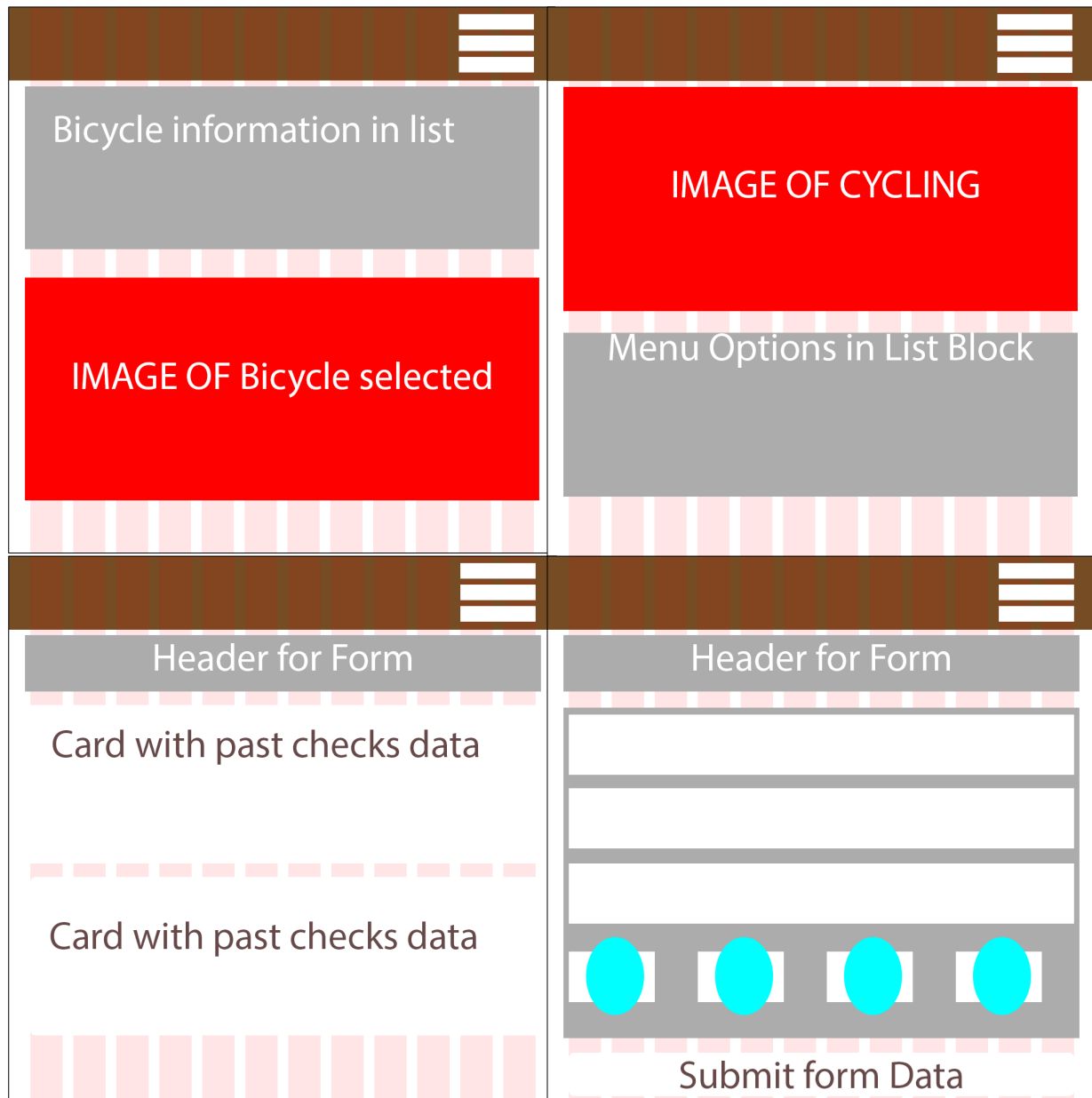
Figure 1.1.1.1 – Wireframes for Framework7

In the above images are the initial designs for the client's requirements. The wireframe template given by the 960 grid system to be used by Adobe Photoshop was used for the development of these images/designs. This helps with knowing the width of the area used and can be used to help track the responsiveness of the elements used. Brown is the theme for the site with a white background, headers will be used in brown.

The reason brown was used was based on looking at bicycle websites, they quite often used colours associated with nature; greys, greens and browns. Using this information, the design was further developed.

To have been able to know the UI of the web app, the pages need to have been created. The method chosen for this approach was the use of a flow diagram, which can be seen on the page.
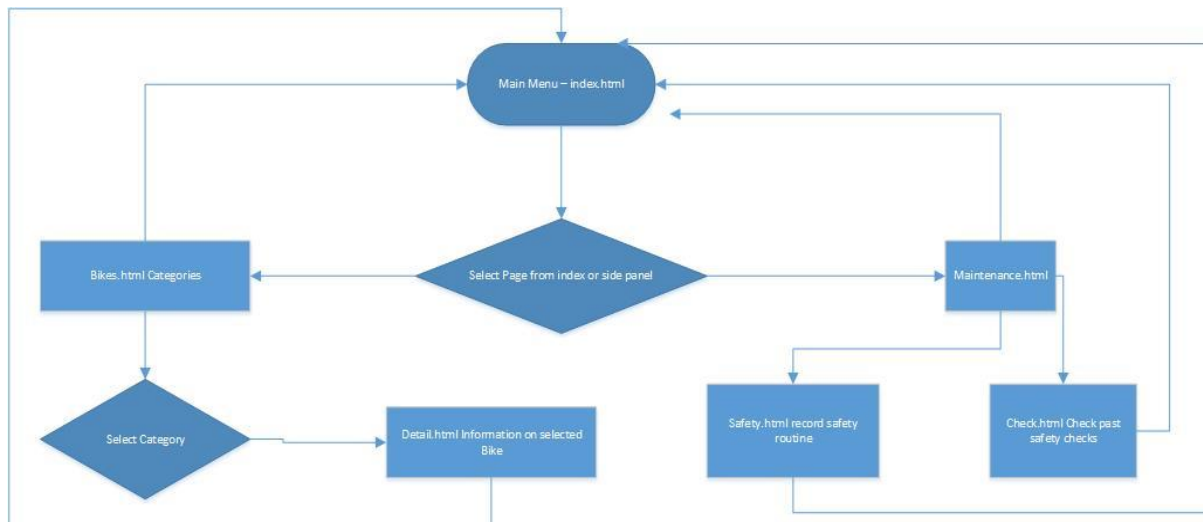
figure 1.1.1.2 – Flow Chart

What figure 1.1.2 is illustration is the starting point, which will be index.html with the project being created with framework7, the decision to make from this page and the routes that can be taken. Now this would have been quite messy as with the side panel option, every page can navigate to every page and so the route of index to all pages is not shown as well as each page to one another, but just the key map routes of the web app.

1.1.2 - Development
To begin with development, the ability and knowledge to use every tool needed for the project was going to be of great benefit. Apart from the help of tutorials and lectures, further help was sought after prior to this crucial stage of the cycle.

HTML was already a strong area, and with the use of framework7, CSS issues were a thing of the past. However, still only very little was known of JavaScript and even less of jQuery. Prior to this project, Ajax was a complete unheard of markup language. This is where the research began. Asleson, R and Schutta, N. (2006) had collaborated on a book on the Foundations of Ajax. They describeAjax as 'more of a technique than it is a specific technology, though JavaScript is a primary component.'   Having read further through on the syntax and referring back to work done in tutorials, the pieces started to fit. Asleson, R. and Schutta, N. (2006) made this easier by the reference to the movie rental service provided by Netflix. On the website, back in 2006, if you were to browse a movie and wanted a quick pop up of details on that movie while remaining on the page, the developer will have had to write the code for each movie on each page creating a cluttered page on the developer's side. With Ajax this is much less cluttered, it provides a way of retrieving the data from a stored location when it is needed, as opposed to being their ready and never used. Similarly, to how both Asleson, R. and Schutta, N. (2006) seen Ajax, Sebesta, R. (2007) spoke of the same principles, and how a page with many user interactions can be significantly hurried up.

Once caught up with the tools and techniques I was most likely going to need, the project needed to be set up. All the node modules known to be needed, and/or may be needed at some stage were added, along with blank files and folders ready for when that stage of development was going to be needed. This gave a good outlay of the project and meant that when one file needed to communicate with another, the root to that file would be identifiable.

figure 1.1.2.1 – my-app.js

One of the key files in Part A of the project was the my-app.js file. A snippet of this file can be seen in figure 1.1.2.1 above. Most the code was taken from previous worked examples in tutorials, but the parts that can be seen in the example from figure 1.1.2.1 is the part that took the most time and the core functionality to the app to meet the client's requirements. The screenshot above shows the two key elements of the program, storing data to the localStorage and then retrieving. Getting the correct data from the form to be passed was difficult but then displaying the data proved even harder. The difficulty was to get the data to be displayed the way that had been designed. This eventually was achieved but with only raw data be posted back to the UI, which would not have been very professional. This issue was eventually fixed after coming back to the project once all other tasks in development were done.

To make the app stand out from the others, a feature that was rather eye catching needed to be added. Using the kitchen sink page, mentioned in chapter 1.1.1, there was plenty to choose from. During the design stage, the side panel menu option had already been an eye opener, though this came with difficult. Eventually after some alterations, the end result was achieved, and can be seen in figure 1.1.2.2 on the next page.
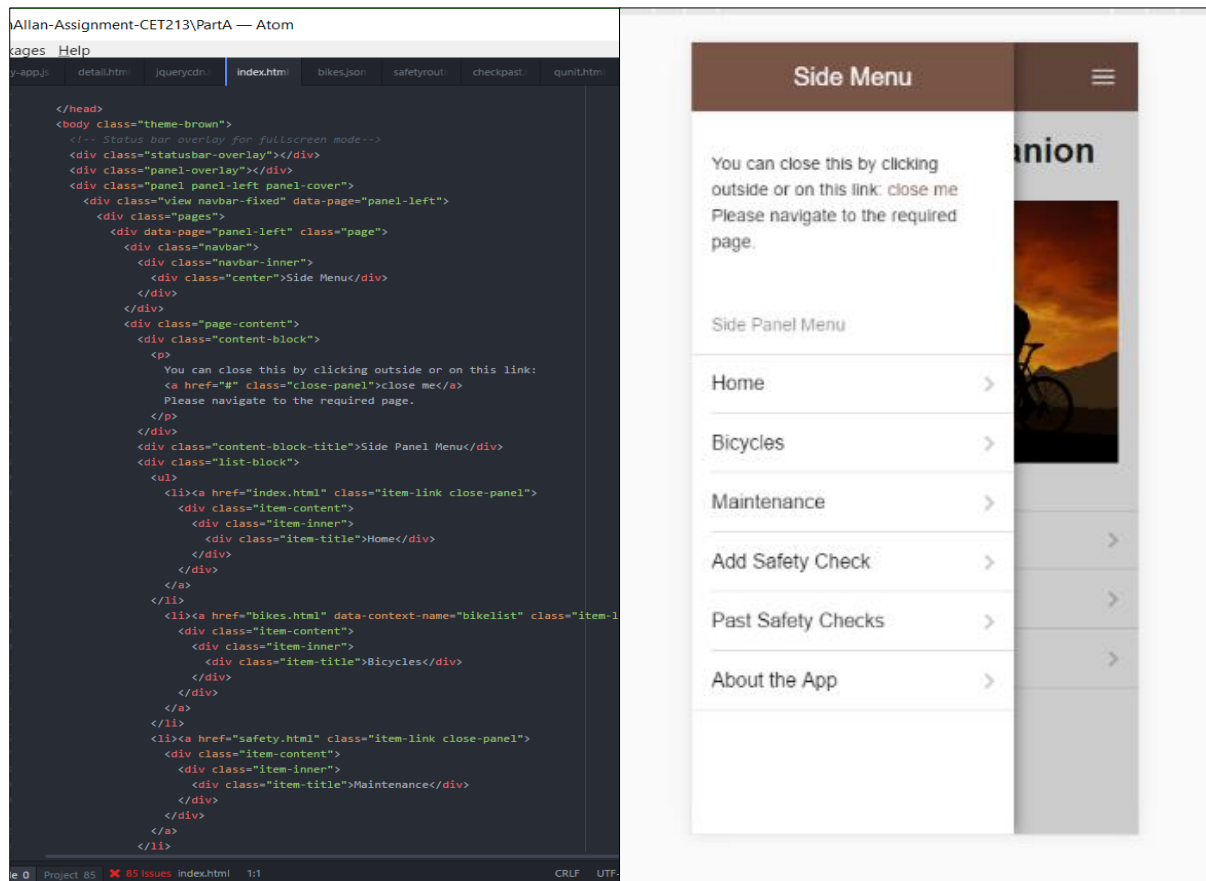
figure 1.1.2.3 – Side Panel Menu Options

This had a few issues, it was not a straight copy over from the example in google developer tools from kitchen sink. Though once this tool was understood it opened the possibilities for more functionality that could be added in the future.

The other two main features taken from the kitchen sink example to incorporate the design were cards and the style of form. Due to the development of this website targeted for future phone gap build tool, the form needed to look like that of a form on an android device, where the user presses switches instead of ticking checkboxes.

Again this was taken from the kitchen sink example based on the initial designs. This provided some difficulty to pass information from the form to the local storage from a file outside of the current working file. Looking back over tutorials and finding help through further research came in handy with this one to push past this dilemma.

Other than the few mentioned difficulties, this was very similar to some of the tutorials. Though the parts that were difficult took up large chunks of time, once the solution was found it become clear as to why the failed attempts were failed attempts, which will help with future development. The next stage now was to use phone gap. All relevant files needed to run the app along with images and node modules installed needed to be moved into a .zip file. Prior to this though a config.xml file needed to be mocked up to give some data about the app and so that it could be converted to a .apk file for simulation on an android device. In this file you could set app preferences such as the orientation or full-screen (remove top toolbar on phone) etc. none of these were used for this app as it was developed how it was supposed to be used without the preferences, though icons were made for all relevant sizes but using the website, www.makeappicon.com.

1.1.3 – Testing

From experience with web, it is difficult to test without just running the file and seeing what happens. There are some good tools to use while doing these techniques. To start with the node modules, 'esLint' and 'html-hint', these test the files for any syntax errors, missing or unexpected symbols etc. in JavaScript and HTML respectively. A great feature in Atom is the ability to also download this into the text editor as a package, which can be seen on the bottom of figure 1.1.2.1 in the previous chapter. This was quite messy and gave a lot of unnecessary errors.

Aside from the testing of the files before start up, there is also Google developer tools to test while the file is running. The better side of the is seeing the errors being outputted to the console window of this feature, or to see value at different parts of the code outputted to the window to help track the data. In JavaScript files it is also possible to set breakpoints much like that of Visual Studios.

The other types of testing are Unit Testing and Integration. To help with this, the node module 'Qunit' was installed. This creates a nice website interface for you to see the output of the functions you are testing. However, this proved very difficult to actually use as all functions required some form of data from elsewhere to be passed in. And so with only being shown how to write a function that returns 'hello' after being called, the testing had to relied on by other means. In the appendix of this report, the results from FireFox Extension Selemium IDE have been recorded and passed over. This tests what the user is doing and is quite similar to black-box testing. I would have liked to have understood this side of web development a great deal more as the issues that were arising were immensely time consuming.
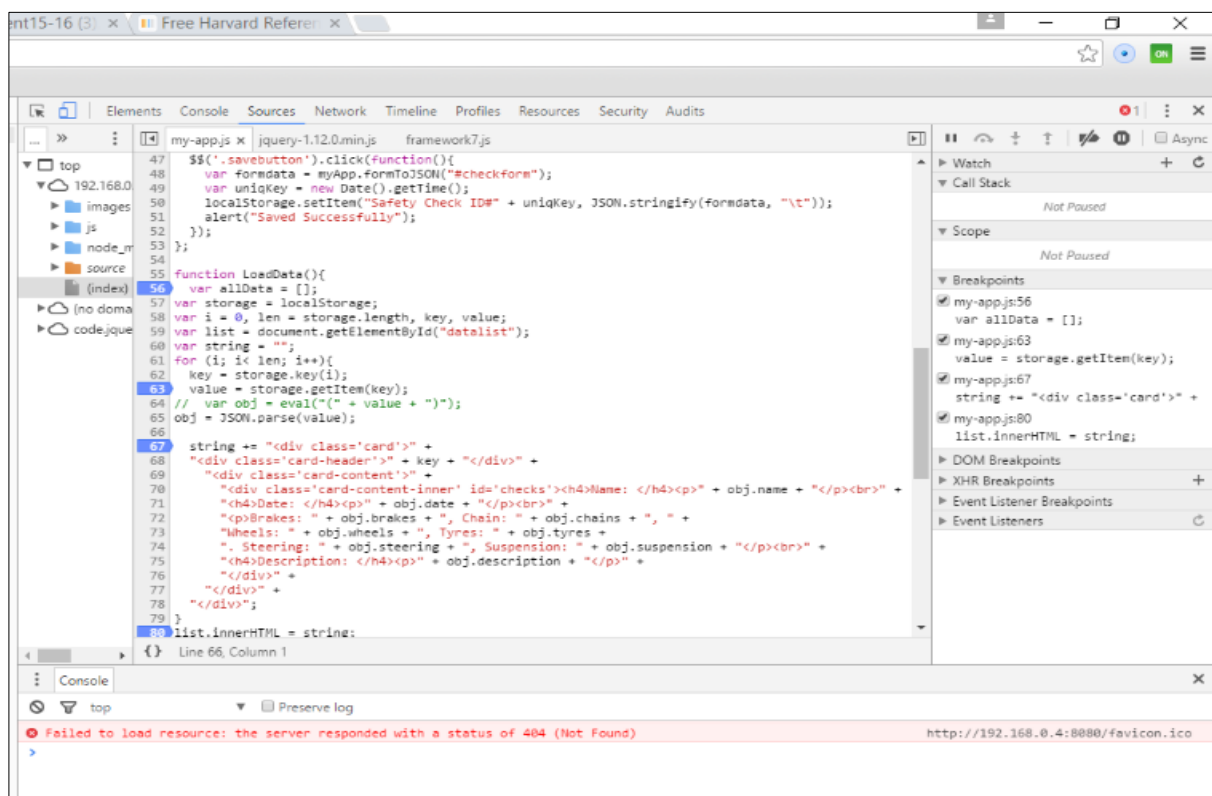

figure 1.1.3.1 – Google Chrome Developer Tools

1.1.4 – Evaluation

From the ability of before going into the project to now, where the project is a functioning device on my own mobile device to use and show other people, the project has been quite successful. Although the lack of testing without node module installs makes debugging a great deal harder and very stressful, there is a lot of help online. Knowing what to search is a real bonus though.

The main holdback for this project was time. The early weeks of the semester the focus was on securing a placement for the next academic year before they had all gone, this led to missed opportunities with discussions on why tutorial work was not working and to grasp the syntax of jQuery, Ajax and JavaScript a bit better. Working towards deadlines is always going to be the case in this industry though in hindsight more effort should have been applied to catching up. Due to not realising just how difficult the work was going to be, time was really gaining up on the deadline and there was a great deal left unclear.

Apart from these holdbacks there are positives. Such as the improvement of a web developer , knowledge on more scripting and mark up languages, new and existing languages have benefitted from this assignment. More key to the actual final product, the design remained the same through-out, this is down to the experimenting with the features of kitchen sink prior to drawing up the design. The design and flow of the website is very smooth, this is due to the added navigation feature along with the benefits of planning the possible routes prior to developing.

Up until the very end the presentation of data was very unprofessional and the time spent on actually saving and getting the values was far too time consuming, working on other features would have got more done but then it is unknown if the issues would have been solved if less time was spent on them.

Overall, the project meets the criteria, the user interactions have validations on them and the project works as an android app on an android device, meeting its purpose of development.

1.2 – Part B

1.2.1 - Design

For this side of the project, more freedom was allowed in development. Bootstrap is a far larger renowned tool for web development with plenty more help available online. This and more experience in using the tool made it the obvious choice for this part of the project. Once again the planning needed to be done. A lot of the functionality of Part A was taught on the spot and to prevent this from happening again, the tutorials were once again looked at and further research from external sources were sought.

With their being the admin side and the general user side of this application, it made more sense to separate them. Later a small link was added to the footer to get from the generic user to admin, just in case this was wrong to keep them apart. With the design outcome being quite nice and the flow of the design from Part A working, this was sort of replicated in the design of Part B. However with Part B using bootstrap rather than framework7, there was some evident differences in the final outcome.

For the design the same approach was taken for Part B as that of Part A. The functionality was looked at along with CSS and components from www.bootstrap.org. This led to the User Interface being design for the general user and admin side of the project. Both can be seen in figures 1.2.1.1. As can be seen, the design is quite similar to that of Part A. But a lot less pages available to navigate through.

From what can be seen in figure 1.2.1.1 is the Home page, Report a pothole, Check for Potholes and then the admin page. As can be seen the theme is gray for admin, this is because its less attractive and so different to the rest of the site, that if somebody was to accidentally stumble upon it they would recognise that they have come onto the wrong page. Their will however be a login form before reaching this stage. The rest of the website carries a red theme. This is because of the linkup between red and danger and potholes being dangerous. People would not be spending long lengths of time of the website, so minimal design and images to help fast loading pages as the website is most likely going to be used on the move. These are the key features in terms of page content and theme. This also reduced a clutter on the flow diagram, with their being only three pages, each able to connect to each other, the need to actually map this out seemed to be irrelevant. Now that the design stage was complete, the development could begin.
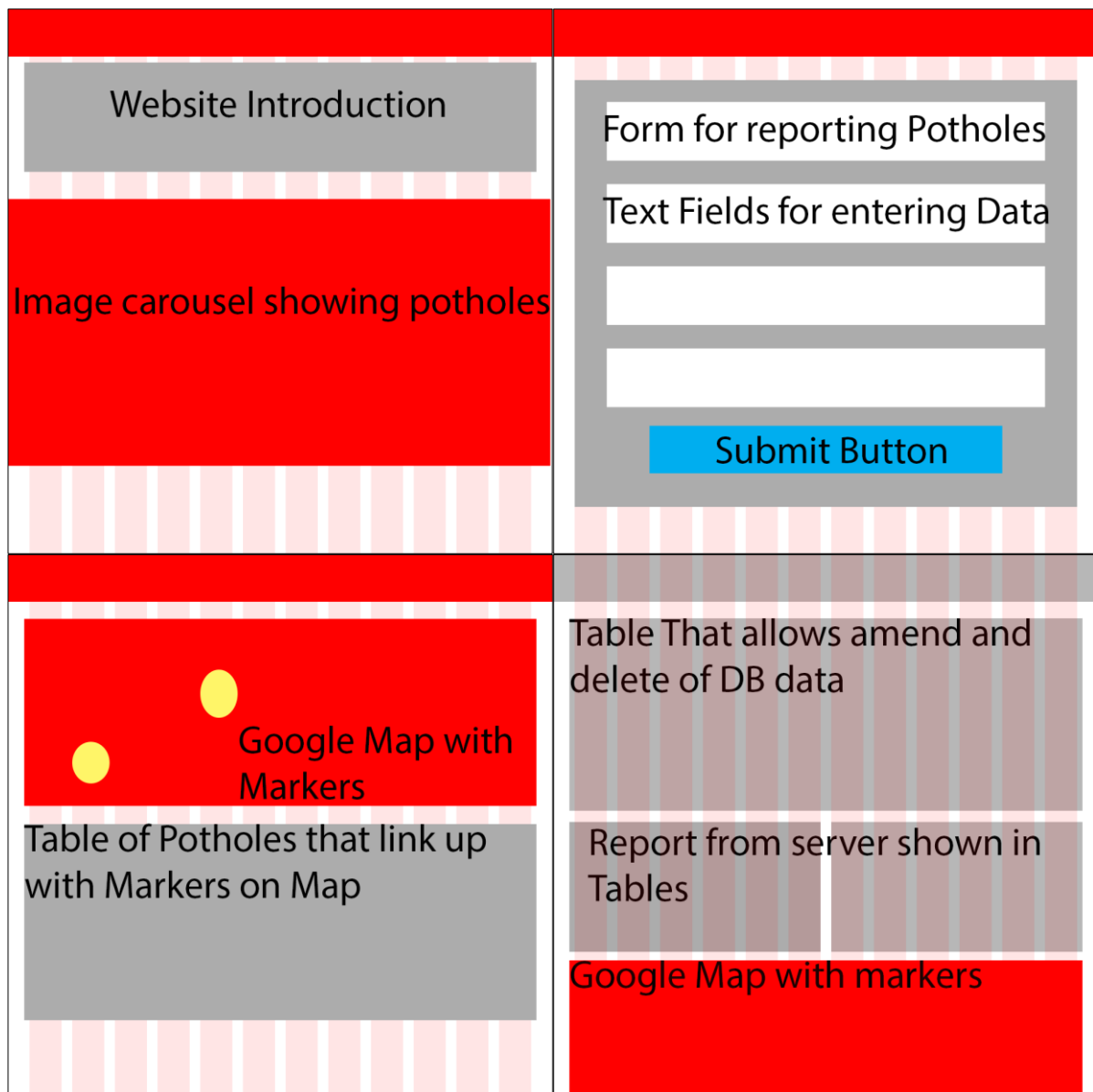
figure 1.2.1.1 – Wireframes Part B

1.2.2 – Development

For this one getting started and set up, with a good boilerplate html using bootstrap, ready for features to be implemented was a lot smoother. Set out the areas for data from JavaScript and Ajax to be passed into. The home page was simple enough, this was copy and pasted from a project started independently with just alternate images, relevant to the task. Adding a form again was easy, how to send that data to the database was difficult. At first sending the data was fine, and the database was getting the correct information, but how to then retrieve the data in a way that it could be used was extremely difficult. This was using Ajax, and from the help of Sebesta, R. (2007) and Asleson, R. and Schutta, N. (2005), I started to see and understand how it was reading it, and the different properties and functions.

The most difficult part and frustrating was the google maps. Getting the map on the screen was easy, adding a marker is simple. But adding a marker using data, this was extremely difficult. The ability to extract the data needed into variables, into arrays and objects, yet the ability to set this information as a marker was elusive. After 7 hours of following a YouTube (www.youtube.com) tutorial on how to completely use a Google Interactive Map, the answer still evaded the file. At this stage, time was precious and so the admin part was created. First the reports needed to be made, with no preference on what or how many, the potholes being repaired were monitored and all the latitudes and longitudes were collected as a way of monitoring staff fixing the pothole and where the engineering would have to go exactly. Using real world scenarios was the thesis behind these reports chosen to run. At this stage the map was weighing heavy and so again experimenting and research went into Google Map Markers. After almost a full day of looking, some work online was found that was similar to the predicament this website was in, having mimicked the code as closely as it could, the answer was still not found. But after going through the book by Firtman, M (2010), the answer was found. Adding an array of objects, each object having an object within it containing the data needed in its own element that does not alter position, the correct data for each marker could be extracted.

The admin page was still without functionality and no advanced feature had been used. A table was created with the options to amend and delete the data, along with tables showing the report and another map with markers. These were fairly straight forward and did not take up too much time.

None of the advanced features really made sense, they had not been covered and each part of the project had already needed a huge amount of research to be undertaken. With the Admin side of the website already having a login form attached, the obvious choice was to try JSONWebTokens. Not to mess up with the program that was fully working apart from this feature, it was taken as a tutorial in a separate folder. Each tutorial had a few node modules in common, mostly mongoose seemed important and a mongoDB. One tutorial recommended signing up to a database website that would soon charge you after so many hours of use or data stored. This would not connect with the database and when trying a local database, node modules were throwing errors. Looking at the time and how much was left to do, the advanced feature was not able to be implemented into the program. Originally there was going to be an image upload option for reporting the pothole, but with the Google Map infoWindow not working either, there was not much where else to have the image so this option was removed.

Once finished, the same testing situation from Part A was exactly the same for Part B, the same tools attempted and used continuously, this will be discussed further in the next chapter.

figure 1.2.2.1 – api-sqlite.js Server side JavaScript showing reports and admin controls

figure 1.2.2.2 – Initialising Google Maps, Loading in Data, Using Data To set as Marker on Map

1.2.3 – Testing

Briefly mentioned in chapter 1.2.2, the testing was very similar to that of Part A.   In Part B however, the use of using the console.log() became a lot more of a powerful tool when trying to solves the issue with Google Map. Although the time spent was still far too long, the knowledge of what it was doing was always known, just how to rectify this was elusive. One thing of note was at one point when running the Selenium IDE in FireFox, the database table in use, potholes, had all its values deleted, as if they were not there. Some of the buttons also did not work, just simple hyperlink buttons to another page. Curious as to why this happened, Google Chrome Developer tools were opened to track the process of the website, and no errors. Still not got an understanding of why this happened. Sqlite3 was ran in the commander and SQL queries were entered and the database was working fine.

Testing on websites has always been difficult, whether it's the user or just the nature of web development, it is definitely an area in which further self-development can be focused, too much time had gone on not progressing. Mocha was looked at on this part of the project, but understanding on how it can be used in the program was difficult. Using knowledge from C# and unit testing, it is fairly straight forward, though we had a good foundation to follow whereas on web development it felt like it was only as good as the links you could find, and there is an immense amount of information on the subject, finding one that works for what is needed is very difficult.

1.2.4 - Evaluation

Quite disappointed with this Part, not so much for the outcome of the website but because of the time spent not making progress. Sometimes it was due to research skills, sometimes it was interpretation ability and other times it was down to silly typos, which is fairly difficult to pick up on in web development.

The appearance is how the design was set out to look, and flows quite nicely. The difference between the admin and the general user sides of the project turned out better than what the designs looked like, which was pleasing.

The features and functionality from part b are very clever, although caused a lot of frustration, it created a good understanding of how JavaScript and jQuery along with Ajax work. Something that definitely needed improving, so there are benefits. In the future, the best approach would be to not dwell too long on the parts that are causing issues, and to constantly be making some practise as this is the closest to a deadline, despite the extension that could be used. The schedule set for the whole of this assignment and for the day to day life was created using an android app, TT(Time Tune). This was done due to notifications by various methods, increasing the importance of certain tasks. The use of an electronic schedule that can be carried round certainly worked a lot more than the ones created in the past on a computer, although these look professional, I do not always have Microsoft Excel at hand, nor does it push notifications to prevent losing track of the schedule.
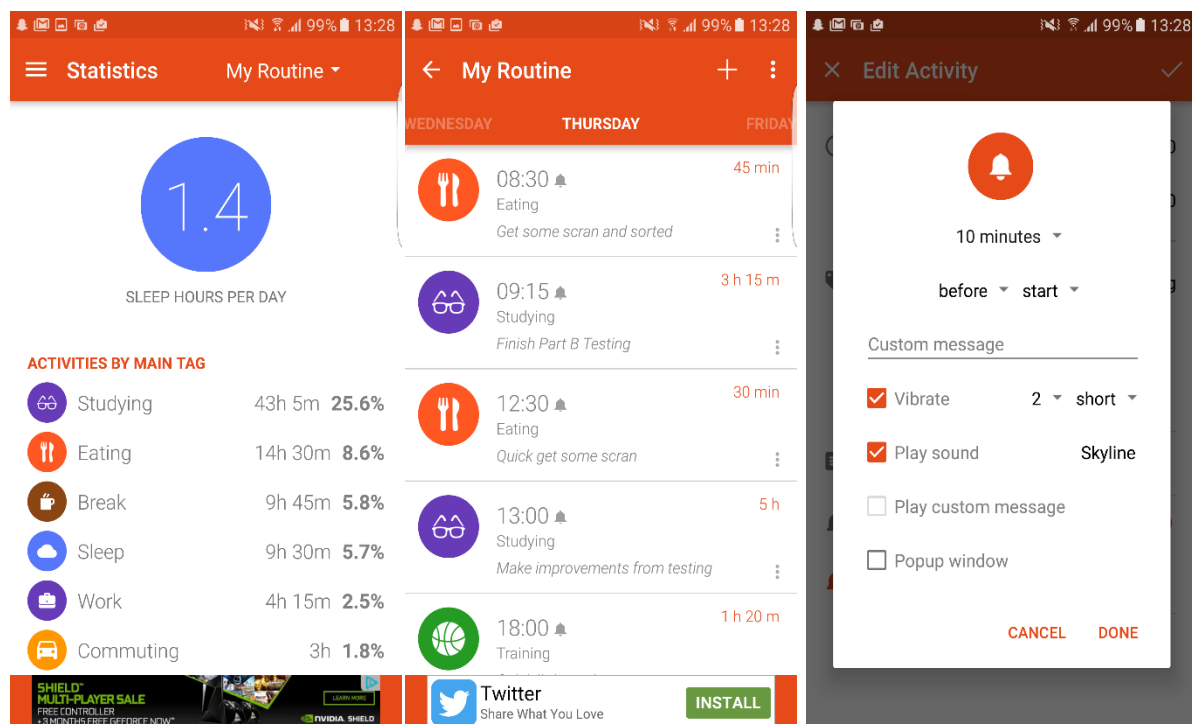
Figure 1.2.4 – Time Tune Schedule App used for keeping track of what to do and when

2.0 – Appendix

2..1 – Project Plan

2.1.1 – Part A

Task	Planned Start	Actual Start	Planned End	Actual End
Complete Outstanding Tutorials	15/04/2016	14/04/2016	18/04/2016	01/05/2016
Practice Features of Framework7	18/04/2016	18/04/2016	18/04/2016	18/04/2016
Create Directory Map with Files	20/04/2016	22/04/2016	20/04/2016	22/04/2016
Node Installs	20/04/2016	22/04/2016	20/04/2016	22/04/2016
Div Locations for Data	20/04/2016	22/04/2016	20/04/2016	22/04/2016
Create Bike.json	21/04/2016	22/06/2016	21/06/2016	21/06/2016
Complete Bike Category	22/04/2016	22/04/2016	23/04/2016	24/04/2016
Complete About App	22/04/2016	22/04/2016	22/04/2016	22/04/2016
Complete Safety Information	24/04/2016	23/04/2016	24/04/2016	23/04/2016
Complete Add Safety Check	24/04/2016	24/04/2016	25/04/2016	26/04/2016
Complete Past Safety Checks	24/04/2016	24/04/2016	25/04/2016	06/05/2016
Test	26/04/2016	27/04/2016	26/04/2016	06/05/2016
Touch Ups/Proofread	04/05/2016	05/05/2016	05/05/2016	06/05/2016
PhoneGap Build	06/05/2016	06/05/2016	06/05/2016	06/05/2016

2.1.2 – Part B

Part A was planned like this originally, but was difficult to keep track of. This is where the app TimeTune came in for Part B. The routine cannot be exported, but screenshots of an example on how the app can be used to set time, task to be doing at that time, and what type of notification to push to alert the user, several of these notifications can be created and several schedules.
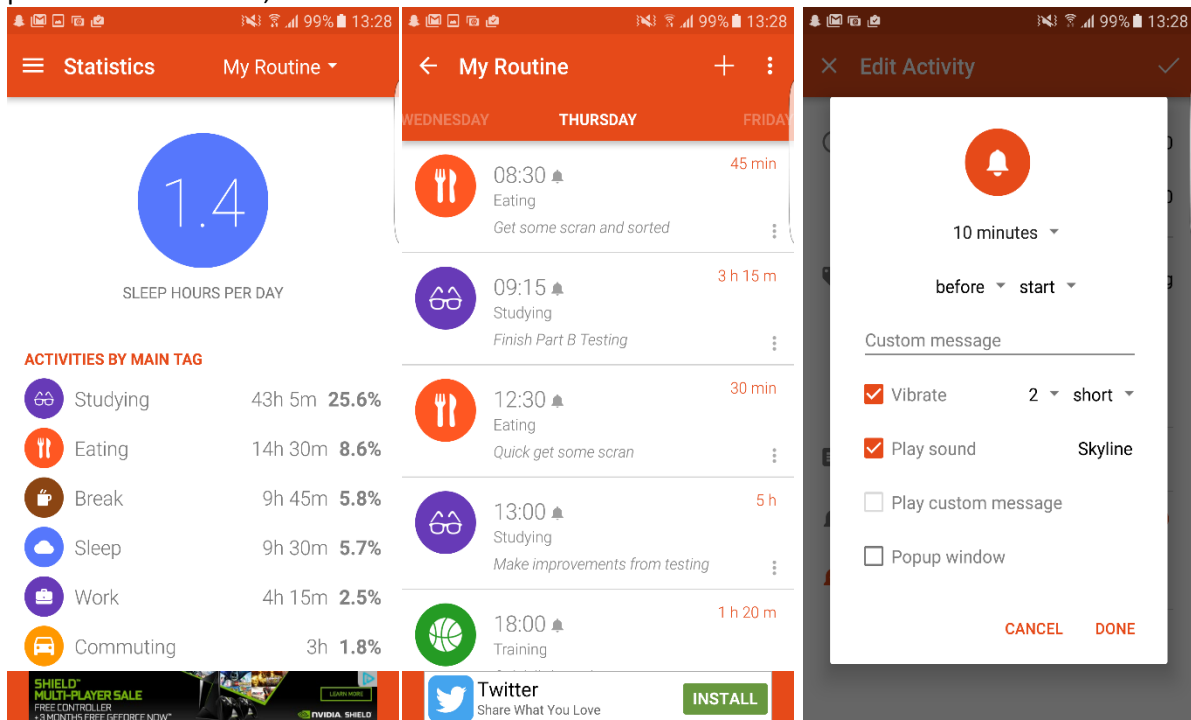
2.2 – Part A Git Log

```
commit 5a5d5bc2b3703f03bc0af042ca34ed801af473d0
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 07:19:20 2016 +0100

    PartA has been made into an apk file.  It has been tested on my
Android Phone and works exactly as it is suppose to.

commit 2cf26b0837569bf700231f7f88f44d2a594385b7
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 05:31:02 2016 +0100

    Gulp will be left out. I am unsure why this never worked, it
went smoothly in tutorials.

commit db7deb00e8a46508e49c0ded722226c58e98c6f7
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 05:27:54 2016 +0100

    Gulp plugins never worked, they had in the tutorial though? I
will test putting the gulpfile.js outside the folder it is currently
in? thought that would affect other folders?

commit 9d983617afab21b980ea9cf5510f6be4e2f89d7d
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 04:55:16 2016 +0100

    both eval and JSON.parse have worked.  I have left it as
JSON.parse.

commit 2a67b35549ab6cb1c05f2e0b2726fb49eaf751ca
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 04:52:31 2016 +0100

    I DONE IT! I have presented the data in a way the user would
appreciate rather than raw data.

commit e18ae6cd0c47493e3cb2eb681f30c3f05e798fdf
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 04:10:17 2016 +0100

    I am very tired. I will only spend a little while on this new
branch.

commit cd0ef716371a38a54e34eb4cef1ee7bedfb194e3
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 04:08:07 2016 +0100

    I want to improve the presentation of the data in partA, using
what I have done in part B, however this is difficult due to the
data having no spaces, so each character is an array element! how
the data is saved needs to be altered perhaps. I will try on a new
branch.

commit f05791c5ba6010c92bce7e8e13fabfe9bceccdb7
```

17

Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 12:22:19 2016 +0100

    further imagery added to improve UI and some more information on
About the App. Only thing left is apk file, which will be done last
to leave time for any further improvements that may be thought of.
Tutorials towards Part B have still not been successful but Part B
needs to be started today.

commit 300389f72c831d261eb8e14d2ef156eb7c83d290
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 12:01:59 2016 +0100

    many problems and very little can be done for Qunit testing,
eslint and htmlhint have been helpful through-out and isntalled as a
package in atom.

commit c667330b9f0b03879c22f96639a102544a4f9c78
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 11:21:07 2016 +0100

    moving files to relevant folders for testing.

commit d95b71d3547d0958fe843ee8bb039675f86d6709
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 11:16:58 2016 +0100

    tutorials for part B are just not working s going to finish up
part A to get as close to 100% as possible due to the likeliness of
struggling with part B. Testing needs doing for part A.

commit 1dffd2727366583858df521067ec7ea0d3fb00ed
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 22:23:09 2016 +0100

    onload would not work with javascript either? had to go with a
button so that it is completed. all criteria for app content
complete. finishing touches will be done after work tomorrow and
Part B will also be started, after reviewing tutorials and going
over the difficult ones to be better prepared.

commit b9c43d420f9937585a1b4ca7b9d5ac2076e08eae
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 22:07:41 2016 +0100

    onload has never worked in tutorials or past projects. it
should work even the onclick should work. not sure what else i can
do other than an onclick on a button.

commit 0b4f85663f951659f7ce8867516686c3a8dec099
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 22:03:40 2016 +0100

    onclick event for loading past checks when clicking to go to
page as onload of page is not doing this.

commit 218503e81f61624684464869c27ad383e29e3e7d
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 22:01:53 2016 +0100

    image problem resolved. pages are quite blank but meet criteria
of project. Further features will be added if time allows.
Possibly a loading screen when going between pages.

commit 23ae5adbe80dd5120c707fac499c610cd6a1be8f
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 21:49:39 2016 +0100

    menu fixed and image needs fixing to show more of the image, I
think this has to do with the background image style.

commit b9128d006e465d49ac2564d0939144502e1243c9
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 19:08:16 2016 +0100

    about page created, using a card with an image from onedrive.
more information could maybe be put on the author and app.

commit a0b225fbc02e2bb529776d5683462bcddfbae8c0
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 18:11:32 2016 +0100

    IT WORKED! altered it from list to paragraph as there is now no
need for it to be as a list. bbut at the top of the page it says
undefined. I can not trace where this comes from. This will be
dealt with if there is time. Now I need to merge back to master and
create the about page. Some framework7 kitchen sink features will
be looked at to make this page more snazzy to pick up extra marks to
try and get a first.

commit 4a8ce23edb5324a9d3e78ded4a0d7fd37b20dfaf
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 18:06:46 2016 +0100

    just noticed the array format of key and values was still there,
see if this fixes the problem.

commit d3f77ae307c3b27e626c430a28614f07022c21a4
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 18:05:17 2016 +0100

    some slight changes and now there are multiple cards but the key
and values are not presented correctly? some more adjustments to be
made.

commit 340636395461d9f0eb7bdc45d84403026becbd53
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 30 17:52:48 2016 +0100

    innerHTML has been changed to a string value that can be
appended on every loop. theoretically this may work.

```
commit d2fecd3508f4eee5f36131f46847f2765865e607
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 30 17:36:06 2016 +0100

    been at work all evening last night and today.  Thought about
saving key to an array, looping the html as many times as the for
loop and then getting the key from array.  will test in a branch,
this needs to be finished tonight latest.

commit 8d4878bf8d5148404919758c7da007c8fa2092df
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri Apr 29 14:49:38 2016 +0100

    all slot of LocalStorage can be found, it must be my innerHTML
overwriting.  Research online looked into childNodes but I got
variable not defined for this.  I have to go to work, time is
running out!

commit 31ac6a7cf6a0f67abebf9265d33f194506b6d762
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri Apr 29 14:44:52 2016 +0100

    trying to read position 0. then 1 then 2.

commit a1ac784a0e31354bac93d996f96fbccb4602462c
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri Apr 29 14:41:44 2016 +0100

    it only returns the most recent data. will test to find key
position 0.

commit 50e8eb972a51301bc5ec8db627e9b37f4781f75f
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri Apr 29 14:10:27 2016 +0100

    checking to see if variable for document element for list
works...

commit ac8881b764e67e16ec0ad126e1dd2ab17a8ad7af
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri Apr 29 14:07:44 2016 +0100

    every time it removes the last list item and creates a new list
item.  this should not be the case. research on innHTML to list
needs to be done.

commit d0d5fb9cda17aeaf92c8e21a3dda3bdf81914540
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri Apr 29 14:00:03 2016 +0100

    I think I am very close to solving this issue of showing all, I
think it is the for loop being < localStorage length and changed it
to == card with header is better in appearance, value is not pretty,
research on how to break this down could be down if time allows.

commit 022aad23c9b8b4c51fcde70def2bc85d39422a4c
```

Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 12:47:44 2016 +0100

    a different card has been used, but console.log is being tested
next.

commit 721b3cb859f54e9c5e3abfce43678734be267ba8
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 12:39:42 2016 +0100

    onload=function does not work but onclick does. however it
still is only doing one data load?

commit e5aea9156a63c3583f7ad93fbdf59d93815ab011
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 12:36:33 2016 +0100

    added divs and list items etc in for loop on JS. tried onload
command on class page.

commit 199d1934a1711eba0d5f8c7ba31bd4b6df2fd297
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 12:25:34 2016 +0100

    think I am close to coming up with a solution to doing multiple
storage.

commit c89cdc21b9178ac526feda65f974d7ea97fbda9a
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 12:16:01 2016 +0100

    Worked, sort of. did not work on page load but onclick worked.
only showed one, the most recent store, in card. need to know how
to do a new card each time. maybe create new card in JS?

commit 1c3d42fa4ad1565b0b8b414a3fa0e6945dba9933
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 12:11:42 2016 +0100

    navbar fixed on checkpast.html. trying iterating through
localStorage and then posting into a card on checkpast.html.
theoretically the JS should be correct. Posting to the correct plac
emay need experimenting, if this does not work, console.log will try
and read the data to check JS is correct.

commit 389a125f9cc531bb76ff7a3d06cc8556a321f5c8
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 11:56:14 2016 +0100

    more curiosity, can I use the handlebars from bikes.html for
safety checks? my assumption is nno.

commit 7bcf4d4edc530711ed2bc37a017fffab1ed8a8f8
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 11:33:35 2016 +0100

        unsure if jquery node was installed. Fixes from yesterday have
been successful. Thankfully.

commit 9262bf37901d5d5ba39f11f73c9f4b5f212140b8
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Fri Apr 29 11:21:46 2016 +0100

        changes made yesterday on university computers. spent entire
day reading up on framework7 and jquery. error was the click event
function. needed to be a class of the button. the button changed to
be a <a> link like that of kitchensink example, which changed the
appearance to be full screen width rather than small in the bottom
left corner. changes worked yesterday on university computers,
changes should therefore work now. Here's hoping.

commit ed8a00865a419e483845f8ca7c8d884a1bac3356
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 22:47:58 2016 +0100

        alterations persistantly not working. need sleep.

commit 7f89424ffe4161ffae6b1c8d7972658667fb253b
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 20:10:07 2016 +0100

        further reflection, slight changes.

commit cee368949e0b421d943ae1df8fcf56ece4a35691
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 18:51:13 2016 +0100

        bet nothing new happens.

commit 22f478c6fec593a3033380dc8adfae3305d1c73d
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 18:41:04 2016 +0100

        tutorials have not realy shown how to use qunit properly other
than very basic function, time needs spent researching the other
things that have not been expanded on. spoke to other class mates
and they have the same code as mine, why does mine not work!?

commit 41f2a46f4d0b92cf56c3d2c0cd4d32dd794af5ae
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 18:39:28 2016 +0100

        not been shown how to pass information from a different website
entirely to test qunit, not got time to waste on this.

commit 2b60bde8850a225e33f2e05e54ca0794f9584457
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 18:22:20 2016 +0100

        setting localStorage in a different fashion...

commit 2da3209d139229702e8416de4e39575063aa9046

Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 18:06:22 2016 +0100

    everything went tits up.

commit ceaf5dd5ad424463886e1442c3d050ce6534fe37
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 17:48:54 2016 +0100

    branch never worked, tried original method with alterations.

commit 58585c0075d8ac1cb743fab8c7eda4b8187d54ce
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 16:19:35 2016 +0100

    Tutorials are not helpful as does not show multiple input from a
form, framework7 is not helpful as it only allows to save one form.
YouTube has very little on the area. trying to combine all these,
going long difficult ways and trying short code. Nothing works they
way the syntax suggests. going to start creating branches and try
multiple methods at a time.

commit 6737f297b1413de446ba8da0e215ec2ac93f2168
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 14:29:24 2016 +0100

    framework7.js is too large, atom crashes. found a way to select
to save data not just constantly edit. Needs testing, or code could
be changed in my-app.js based on framework7.js for storing.

commit 19ad0c0ecb535bc7db289a7db3234c88a0fddce1
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 14:07:30 2016 +0100

    Theme and layout adjusted to brown and dark to show mud and dirt
associated with riding.

commit 1333d0bd3c4c6ea1a54f3c5ca125026dff3d4d13
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 14:03:31 2016 +0100

    Form saves data straight to localStorage. However, it only
allows for one as the form can just keep being edited as it always
shows saved data for editing. This might be changeable otherwise my
own will need creating.

commit 2721c798d3a372ed0888fdd0b3e7a5da67a97a30
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 13:47:52 2016 +0100

    kitchensink form examples used, might also use localStorage, but
without a button?

commit 9b849824e3dd2151561547c22bb0578c1c7d0a53
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 13:07:43 2016 +0100

    Indent issue resolved.

commit 0ab18757eeef6e9481d4458e19c1ed20cb8fe828
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 13:06:02 2016 +0100

    Navbar working, one slight problem with side panel menu, bike
category option is indented.

commit d512149b2e728a51f52de9d4972e0d8891124ef9
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 12:37:50 2016 +0100

    further adjustments to the navbar.

commit 1002344498fbfe70379bfdfe115d414b65343bb3
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 12:20:54 2016 +0100

    error still persisting, checking alternate way of stopping
overlay.

commit e4060eb18cf90f8406bd217300e5782ac02d7a8e
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 12:17:45 2016 +0100

    found overlay problem.

commit bdf40b770ccc080f24d575d9d5488800b7b02c24
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 12:07:57 2016 +0100

    position of navbar titles overlapping. changed from sliding.

commit d7de54660173cec7de90e5776beeef816dbe8fad
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 12:01:50 2016 +0100

    Icon missing for side panel, option added.

commit e28f5e1c2b53b78a9e401fd7f02c2b87e376091d
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 11:53:47 2016 +0100

    kitchen sink examples for side panel menu and to sort css error.

commit 8d09ea0bd3fe8409d8fbb2d368ac88e8dcf6285d
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Wed Apr 27 11:26:03 2016 +0100

    Changed to android from ios. now looks messy so will have to
fix.

commit c7c5bc13704902152db742837c3074ff554e0b6a
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>

Date: Wed Apr 27 11:22:04 2016 +0100

    localStorage research found online for saving data from a form.
Form switches also researched, may be implemented to improve user
interface and control

commit fabee94e01efcb1f911d7968f9550e35ce99b3c8
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 23:22:51 2016 +0100

    Not saving to localStorage. Further research needed. Issues in
tutorials too.

commit 1ca3e685f3d7b0b7fe71e24142e945fd81e088fd
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 23:14:20 2016 +0100

    form should save to localStorage. Needs testing.

commit 7007b0e689d8874b07e0d4cfd7d13f2024049c89
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 23:03:35 2016 +0100

    Form now styled for appearance. Need to now save data from form
to localStorage.

commit 72f99b28760e23bd55d6220e717b02308f6ef283
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 22:55:18 2016 +0100

    Testing button against submit.

commit 3f1acbac43598919e817bd1b9de3faa5c8f66020
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 22:51:49 2016 +0100

    form tidied up.

commit 9caaa456bc56ab6dbfdb15b628d91bea06d16271
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 22:46:33 2016 +0100

    form created for user to pass in data.

commit 0635286d6289871ddf38022078928ffb18b5313e
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 22:22:54 2016 +0100

    safety.html styles and information added. now need to add a
page for adding and viewing checks.

commit 5780de64388d16ce60ab02f02ec810d628388f3a
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 22:10:27 2016 +0100

    json file altered to have image path and then path is called in
detail.html

commit 920ece36b9be07ac881584717fef8b085bff128d
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 19:41:24 2016 +0100

    Added width back in for 100%

commit d9ff93cea27d77b2b9915aaf18ad7b216bd19ca7
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 19:33:38 2016 +0100

    file is found but not shown. removed all styling to image.

commit 538b1b3af7e2c1886a7f029c076af1ac0a49eb9a
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 19:31:04 2016 +0100

    Image difficulties, hopefully resolved.

commit 2480b46cffd2552f3581eb35cbbcf852e50bd23a
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 19:25:48 2016 +0100

    Some pages created for next part of website. Images added for
bikes. first test.

commit fd4e58a9b7a9e50f172bec8e95cb08a6228c6d94
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 18:53:47 2016 +0100

    Bike categories and details done. blank page created for safety
checks.

commit e50959f6d7b6d5aed087e639593ad55b9f2ce4d7
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 18:42:18 2016 +0100

    slight error on json perhaps.

commit a1a688172848e994cc632becd44959caf9234297
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 18:33:52 2016 +0100

    All files completely re done from scratch. Time to test.

commit b0fed745653df3f32f4a671d15907ac121a44e80
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 18:20:15 2016 +0100

    Changes to bikes.json to test if this fixes errors by character
count.

commit 6e4f350cde8eff3ca543673fa63c0731cb745698
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>

Date: Tue Apr 26 18:06:06 2016 +0100

    .gitignore removed to view npm installs.

commit 57cc5f8364872ee5a263bb81fe0c5b5d8af26329
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 17:46:53 2016 +0100

    changes to JS file. third test.

commit 2c32ad2bc6a7c80f5a8670d5f82542bd10d76ecf
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 17:42:53 2016 +0100

    Folder for JS created.

commit b7b21ca7bf64ccf296c3e7191cdf7f1f71cad54b
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 17:37:56 2016 +0100

    Few changes made, second test.

commit a5cd8b505edaa12f39ee8a84a2000d0e2e17dc74
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 17:35:05 2016 +0100

    All files relevant to showing Bike details should now be
working, first test.

commit a58818868add8fffc91115c785710431e6a15250
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 17:30:05 2016 +0100

    Bikes.Json Completed.

commit 4c2eb9a16fa7af94416310ecd9be0414cf4f3b82
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 16:13:09 2016 +0100

    relevant tutorial pages for editing towards this project.

commit 8c0a2865f9c4e46064807561aef21a85f35c40e0
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue Apr 26 15:57:32 2016 +0100

    tutorial index.html file copied over for editing towards this
project.

commit b05d88aeb3cce3905aa3fb1469b1a1ab895f6304
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Sat Apr 23 23:27:57 2016 +0100

    usefulcmder.txt updated with all relevant command line prompts
to start assignment.

commit 04bcc3e71d0d5965341a3d557d8bd0c5836b0a74

```
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 23:26:47 2016 +0100
```

    all npm installs for testing. more copy and pastes of files
need checking from tutorials.

```
commit 84abee19a24c9ba534d20bd7adeaf03f0d03505c
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 23:17:09 2016 +0100
```

    copy and pasted my-app.js from lab4b tutorials and npm installs
for handlebars with gulp.

```
commit 4e2f00afb83ef92a26742451b05f66f4a150a611
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 23:07:49 2016 +0100
```

    npm installs of gulp and gulp plugins. gulpfile.js copy and
pasted from tutorial 3b.

```
commit f226a1544d6cae10111ff30852e53dc6dff6a3af
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 22:58:49 2016 +0100
```

    further npm installs of framework7 and more cmder line supdated
in .txt file.

```
commit 17a500fea4e3c216a673095629561e7bcbc22437
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 22:55:00 2016 +0100
```

    useful Command line in order of use, specifically for this
project.

```
commit 077edd9b51709b158f6aebaa8ab04f1040c539ae
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 22:49:21 2016 +0100
```

    notes of JQuery taken, npm http-server installed.

```
commit 90829b30667d8f5d0092d24168888bd4c6b9e7f7
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 22:41:19 2016 +0100
```

    .gitignore set up to not pass node_modules to repository.

```
commit de23ad0aceae6bcab8e5fb0bd5901604af5444b8
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Sat Apr 23 22:37:54 2016 +0100
```

    initial commit with contributors'

2.3 – Part B Git Log

```
commit f3bded984a68f19b9500ceee84ff2d8db607730f
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 14:25:19 2016 +0100

    Finished, screencast recorded.

commit e0261bbedb1f6eefdbd4ae34a90118dfb8a69c7d
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 12:00:27 2016 +0100

    Just ran selenium in FireFox for this and all data in potholes
DB had disapeared?

commit 874f586470fcb752647076b5615c4c8e850ec618
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 03:45:14 2016 +0100

    Finished part B except for the infoWindow I wanted on my maps
and without an advanced feature.  I will look at Part A for any
further changes before making this an .apk file.  I do have the
extension due to my placement for missed weeks, for monday but with
other deadlines round the corner, I will have to get this done for
the Friday deadline. On my User side I have decided to put a small
link in the foorter for the admin side of this, though I was going
to keep this separate, I went with the thought process of just in
case my marker cannot find the admin side, this is another route.  I
have a table showing DB data underneathe the map in the customer
side of the website. along with adding some validation to the form
for when the user does not enter all relevent fields.  on the admin
pages I have made it posible to show when a pothole is fixed or in
the process of being fixed.  in a real world application this could
be a way to notify somebody to go and actually fix this.  the admin
can also delete a row.  all of which connects from the table to the
database.  underneath this table are some reports showing the
potholes that are still being repaired and all the latitudes and
longitudes. this could be done in many ways such as showing all that
need to be repaired and all the ones that have been fixed.  if time
allowed I will add these two further tables/reports.  underneath
these reports is a map just like the one from the client side of the
website.  it is 100px larger as the admin is most likely to be using
a desktop than a mobile device and is further zoomed to compensate
for the map being larger.  I wanted to do a great deal more on the
maps, having spent 7 hours on an online tutorial, but alas this was
not meant to be.  I have decided against adding more images as with
mobile first design for the user side of things, I want the page to
load fast and less images do this, not only this but the content
amount fills the page quit nicely and I do not want to create larger
pages for a slower response.

commit 3c709333a8fc3d5649662f1e3891f6df92f3bcec
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Fri May 6 01:06:59 2016 +0100
```

Well after several tutorials, I kept getting errors thrown from the node module files for webtoken tutorials? I don't know what else to do, after hours going step by step through a step by step tutorial there is nothing more I can do. I do not really understand what the other advanced features are asking of me. And once again sqlite3 is not working to make alterations to my database. I think what we done in lectures and tutorials is so far off from the assignment, I have spent far too long going over online tutorials for nothing to have been achieved. And I am back tracking far too often on things I have already had working in the past.

commit 78e2ce4e351dd97754c556af5d64209e40027b73
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Thu May 5 22:42:41 2016 +0100

    forgot to add all file changes.

commit 5b3384bcc0c4e4e3cc70dcea706170a9c7c536f7
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Thu May 5 22:22:07 2016 +0100

    client-server admin delete table row from both UI and DB. not sure what else to do for the admin side? ammend? I will look into ammend.

commit 5b057c43a1a532fc00b77962b5788111ebd0a465
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Thu May 5 19:00:37 2016 +0100

    WHY HAS THIS STOPPED WORKING! THE CODE HAS NOT BEEN TOUCHED SINCE IT LAST WORKED! I HATE WEB!

commit 8b0e94c8e22e41fd25878acb759892b77eeb2723
Author: unknown <bg50xx@sds-fas-cellb13.uni.ad.sunderland.ac.uk>
Date: Thu May 5 17:21:46 2016 +0100

    need to add infowindows, going to try altering marker code. creating a branch incase this goes how everthing else has gone!

commit 3eb0accfabd2ad62bcac650d051242ea7fb2a9a1
Author: unknown <bg50xx@sds-fas-cellb13.uni.ad.sunderland.ac.uk>
Date: Thu May 5 16:36:21 2016 +0100

    It worked! multiple flags and on page load! Crack out the champagne! Now I will try and create an infoWindow like I learned from the tutorials last night and this morning.

commit 57b0973375c83e090dc4d31d185a012b19201abe
Author: unknown <bg50xx@sds-fas-cellb13.uni.ad.sunderland.ac.uk>
Date: Thu May 5 12:29:29 2016 +0100

    IT DID NOT WORK! IT DOESN'T EVEN LOAD THE MAP! I spent 7 hours on those tutorial videos. Why will it not just pass through a variable with my original method!?

commit 435d616d82806e27a1594624b473ce6eace2c94d

```
Author: unknown <bg50xx@sds-fas-cellb13.uni.ad.sunderland.ac.uk>
Date:   Thu May 5 12:19:38 2016 +0100
```

    180 minute online google maps tutorial finished. Still never
learnt how to pass in DB values. It should theoretically just
worked yesterday with my original code. I have a feeling this will
not work.

```
commit b13c70c49abce01b7c2c659f9e39d4776aba8481
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Thu May 5 01:47:19 2016 +0100
```

    Still not done with tutorials online for using google maps to
put a marker on, and its still hard coding the coordinates.
hopefully I can get this done first thing in the morning as its 2am!

```
commit e502018528aaf2c58a213825c4f568f32ff48a7b
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Thu May 5 00:44:51 2016 +0100
```

    very close to having google maps sorted with it also being close
to be ready for admin controls too. This is taking a while. but
only 5 more tutorial videos to go.

```
commit 2863a8185218f1caa871d388b15977d598abc2d7
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Thu May 5 00:20:27 2016 +0100
```

    three hours into YouTube tutorials. This is looking promising.
very tired.

```
commit b59bdf7eaa5d5430b823c93c9cdd24858df76ccd
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Wed May 4 20:41:14 2016 +0100
```

    had an idea on fixing the marker issue. to load the map when
the user selects a location. this may help with presentation of
JSON data in part A.

```
commit 715e41f41e79d45837266cba8f77fe592f1859e6
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Wed May 4 19:20:21 2016 +0100
```

    very close, I am getting the lat and long values I just need
this to appear as markers! Will focus on part C tonight and try
again in the morning.

```
commit af50c494861365f1fde10b33fccf2dc61e7bf6ff
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date:   Wed May 4 18:19:08 2016 +0100
```

    Can save data to the database. finally. Trying to put a marker
down for each location stored.

```
commit 943b16011d622b305f605ed96c6abe0fb9d38253
Author: unknown <bg50xx@sds-fas-cellb06.uni.ad.sunderland.ac.uk>
```

Date: Wed May 4 14:55:52 2016 +0100

    making progress. values from form are now being posted in
console. They are not being inserted into DB amd error message is
coming up. Work on Part C has been further wrote.

commit b62050c093b7f4589d3b4c871d5a187794890fed
Author: unknown <bg50xx@sds-fas-cellb06.uni.ad.sunderland.ac.uk>
Date: Wed May 4 12:30:10 2016 +0100

    ITS NOT WORKING!!!! the form has a button now to get the
latitude and longitude and then this should just post to api-sqlite.
But it cannot find property latitude. It should. It is done the
same as the tutorial? Why will this not work?

commit 5f2d52bddd4c2da6a6ed089903d0b07f2cec47a0
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue May 3 22:51:39 2016 +0100

    like part A and all tutorial work, I cannot get onload to work.
I need a way to pass in latitude and longitude, I think pass the
data in when posting lat and long at the same time is too soon, if I
could get the lat and long on the page before posting to the
database, this may fix the issue. otherwise i am confident my DB
is working as my tutorial work was very very similar for the rest of
the form.

commit 9a14d7699c93c4fd825971fa17dd469c0dd3e31c
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue May 3 21:39:51 2016 +0100

    error in getting the geolocation to DB so have tried an
alternate way to makew it similar to the other values.

commit 9313928f7e917624cfafafa14b43e1423c388cad
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue May 3 21:26:44 2016 +0100

    seperated geolocation JS and sqlite JS. Hopefully this is a
success so that I can move on with image upload and map.

commit 1633659f3b03372fe77e270f774b2050432e96d1
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Tue May 3 21:20:23 2016 +0100

    managed to complete the api tutorials, having another crack at
this part of the website. Not at work now till after the Friday
deadline, despite having an extension this is still the target
deadline.

commit 54ee6c5c316a6c874a310597c6c5f44633c44ec1
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 19:57:33 2016 +0100

    Think I may be way over my head here. I have got the lat and
long to be saved to variables as well as the values from form to

then be passed into potholesDB after clicking to submit. I have
ignored image upload for now.

commit 8a3a8dcad6828667b6c06be410bab449037efe5e
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 19:08:08 2016 +0100

    Form completed, going to get latitude and longitude from when
the user selects the submit button. Need to look into file upload
of an image.

commit 5e42f7b0091cf7b0299754f04805bbe4e7a6b83e
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 18:57:44 2016 +0100

    I think I have found a way to do the client server without too
much code, so I am creating the interface for sending pothole data.
At this point I have been doing tutorials and now just added a form
I got from the official bootstrap website. this needs customising
but first I want to see how it looks and if it is responsive.

commit fc7b0c8f245eabdb3e28f0a12df96bdf8d83b8ce
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 15:51:40 2016 +0100

    navbar active tab has been given a style backgorund rather than
set to active class as this only alters colour anyways, so manually
altered colour rather than trying to alter active class css.

commit f25d158ad4e8db2e347330b80900023bbf1072f4
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 15:45:34 2016 +0100

    basic html for page to be developed created.

commit 7d2f8e7b10e6a946efcca2b62688627f2206457f
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 15:37:08 2016 +0100

    page for reporting potholes and a page for checking potholes
created. Both blank.

commit 4f1726f4dfb6925ff0abfe6ce2695d3df4c2d1d5
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 15:35:16 2016 +0100

    image sizes altered.

commit 6f6d0c506f12dd089812d3d4132a0e4879a37f64
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 15:00:23 2016 +0100

    image carousel added of potholes and damaged road on homepage.

commit bd671bf36e2f84ae107a77759d1342898e0c5597
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>

Date: Mon May 2 14:43:35 2016 +0100

    navbar styled, errors styling active tab color, not too bad of a
colour at the moment, something to work on if time allows. going to
add image carousel of potholes on the homescreen, from previous work
having images all the same size is beneficial for this.

commit ae559cc47fce6e3410bf9b0982fdd16c77bd58e8
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 14:09:06 2016 +0100

    introduction, navbar and footer of homepage up and running.
Going to try and change navbar with own css file.

commit a0dbc5e7f598d99951ed8e0c1184ec2278cf746c
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 13:50:58 2016 +0100

    all scripts and stylesheets with navbar in home.html

commit 711abc82235682cafd9279d90949e3c16b658eeb
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 13:32:17 2016 +0100

    all relevant npms that may be used in this project installed,
project will be developed with bootstrap. blank html page created to
get started.

commit c00d94a9fc4ed4a87cd7f33faa5b8535982a5473
Author: Lewis Allan <bg50xx@student.sunderland.ac.uk>
Date: Mon May 2 13:03:10 2016 +0100

    initial commit with contributors.

2.4 – Part A Selenium Tests

```
package com.example.tests;

import java.util.regex.Pattern;
import java.util.concurrent.TimeUnit;
import org.testng.annotations.*;
import static org.testng.Assert.*;
import org.openqa.selenium.*;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.support.ui.Select;

public class FireFoxSeleniumTesting {
  private WebDriver driver;
  private String baseUrl;
  private boolean acceptNextAlert = true;
  private StringBuffer verificationErrors = new StringBuffer();

  @BeforeClass(alwaysRun = true)
  public void setUp() throws Exception {
    driver = new FirefoxDriver();
    baseUrl = "http://192.168.0.4:8080/";
    driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
  }

  @Test
  public void testFireFoxSeleniumTesting() throws Exception {
    driver.get(baseUrl + "/");
    driver.findElement(By.cssSelector("a.item-link.item-content >
div.item-inner")).click();
    driver.findElement(By.cssSelector("div.page.page-on-center >
div.page-content > div.list-block > ul > li > a.item-content.item-
link > div.item-inner")).click();
    driver.findElement(By.cssSelector("i.icon.icon-bars")).click();
    driver.findElement(By.cssSelector("div.item-inner")).click();

driver.findElement(By.xpath("//div[2]/div/div[3]/ul/li[2]/a/div/div"
)).click();
    driver.findElement(By.xpath("//div[4]/ul/li[2]/a/div")).click();
    driver.findElement(By.id("name")).clear();
    driver.findElement(By.id("name")).sendKeys("Recording Test");
    // ERROR: Caught exception [ERROR: Unsupported command
[selectFrame |   | ]]
    driver.findElement(By.id("command-button-pick")).click();
    driver.findElement(By.id("command-button-pick")).click();
    driver.findElement(By.id("toolbox-close")).click();
    // ERROR: Caught exception [ERROR: Unsupported command
[selectWindow | null | ]]
    driver.findElement(By.id("brakes")).click();
    driver.findElement(By.id("chain")).click();
    driver.findElement(By.id("tyres")).click();
    driver.findElement(By.id("steering")).click();
    driver.findElement(By.id("description")).clear();
    driver.findElement(By.id("description")).sendKeys("dsgsef");
    driver.findElement(By.id("Save")).click();
    assertEquals(closeAlertAndGetItsText(), "Saved Successfully");
```

```java
    driver.findElement(By.xpath("(//a[contains(@href,
'#')])[5]")).click();
    driver.findElement(By.xpath("//li[5]/a/div/div")).click();
    driver.findElement(By.id("Past")).click();
    driver.findElement(By.cssSelector("i.icon.icon-bars")).click();
    driver.findElement(By.xpath("//li[6]/a/div/div")).click();
  }

  @AfterClass(alwaysRun = true)
  public void tearDown() throws Exception {
    driver.quit();
    String verificationErrorString = verificationErrors.toString();
    if (!"".equals(verificationErrorString)) {
      fail(verificationErrorString);
    }
  }

  private boolean isElementPresent(By by) {
    try {
      driver.findElement(by);
      return true;
    } catch (NoSuchElementException e) {
      return false;
    }
  }

  private boolean isAlertPresent() {
    try {
      driver.switchTo().alert();
      return true;
    } catch (NoAlertPresentException e) {
      return false;
    }
  }

  private String closeAlertAndGetItsText() {
    try {
      Alert alert = driver.switchTo().alert();
      String alertText = alert.getText();
      if (acceptNextAlert) {
        alert.accept();
      } else {
        alert.dismiss();
      }
      return alertText;
    } finally {
      acceptNextAlert = true;
    }
  }
}
```

2.5 – Part B Selenium Tests

```java
package com.example.tests;

import java.util.regex.Pattern;
import java.util.concurrent.TimeUnit;
import org.testng.annotations.*;
import static org.testng.Assert.*;
import org.openqa.selenium.*;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.support.ui.Select;

public class SeleniumB {
  private WebDriver driver;
  private String baseUrl;
  private boolean acceptNextAlert = true;
  private StringBuffer verificationErrors = new StringBuffer();

  @BeforeClass(alwaysRun = true)
  public void setUp() throws Exception {
    driver = new FirefoxDriver();
    baseUrl = "http://192.168.0.4:8080/";
    driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
  }

  @Test
  public void testSeleniumB() throws Exception {
    driver.get(baseUrl + "/home.html");
    driver.findElement(By.cssSelector("a.carousel-
control.left")).click();
    driver.findElement(By.cssSelector("a.carousel-
control.left")).click();
    driver.findElement(By.cssSelector("a.carousel-
control.right")).click();
    driver.findElement(By.linkText("Report a Pothole")).click();
    driver.findElement(By.id("Save")).click();
    driver.findElement(By.id("name")).clear();
    driver.findElement(By.id("name")).sendKeys("Lewis");
    driver.findElement(By.id("streetname")).clear();
    driver.findElement(By.id("streetname")).sendKeys("Test");
    driver.findElement(By.id("postcode")).clear();
    driver.findElement(By.id("postcode")).sendKeys("Selenium");
    driver.findElement(By.id("pstatus")).clear();
    driver.findElement(By.id("pstatus")).sendKeys("IDE");
    driver.findElement(By.id("Submit")).click();
    driver.findElement(By.linkText("Find Potholes")).click();
    driver.findElement(By.cssSelector("div[title=\"Zoom out\"] > div
> img")).click();
    driver.findElement(By.linkText("Admin Area")).click();
    driver.findElement(By.xpath("//input[@value='Login']")).click();
    assertEquals(closeAlertAndGetItsText(), "Invalid UserID");
    driver.findElement(By.id("id")).clear();
    driver.findElement(By.id("id")).sendKeys("admin");
    driver.findElement(By.id("pass")).clear();
    driver.findElement(By.id("pass")).sendKeys("a");
    driver.findElement(By.xpath("//input[@value='Login']")).click();
```

```java
      assertEquals(closeAlertAndGetItsText(), "Invalid Password");
      driver.findElement(By.id("pass")).clear();
      driver.findElement(By.id("pass")).sendKeys("admin");
      driver.findElement(By.xpath("//input[@value='Login']")).click();

driver.findElement(By.xpath("(//button[@id='delete'])[5]")).click();

driver.findElement(By.xpath("(//button[@id='delete'])[5]")).click();

driver.findElement(By.xpath("(//button[@id='repair'])[4]")).click();

driver.findElement(By.xpath("(//button[@id='repairing'])[3]")).click
();
      driver.findElement(By.linkText("Non-Admin Home")).click();
      driver.findElement(By.linkText("Admin Area")).click();
      driver.findElement(By.cssSelector("button.btn")).click();
      driver.findElement(By.cssSelector("button.btn")).click();
      driver.findElement(By.cssSelector("button.btn")).click();
      driver.findElement(By.cssSelector("button.btn")).click();
      driver.findElement(By.cssSelector("button.btn")).click();
   }

   @AfterClass(alwaysRun = true)
   public void tearDown() throws Exception {
      driver.quit();
      String verificationErrorString = verificationErrors.toString();
      if (!"".equals(verificationErrorString)) {
        fail(verificationErrorString);
      }
   }

   private boolean isElementPresent(By by) {
      try {
        driver.findElement(by);
        return true;
      } catch (NoSuchElementException e) {
        return false;
      }
   }

   private boolean isAlertPresent() {
      try {
        driver.switchTo().alert();
        return true;
      } catch (NoAlertPresentException e) {
        return false;
      }
   }

   private String closeAlertAndGetItsText() {
      try {
        Alert alert = driver.switchTo().alert();
        String alertText = alert.getText();
        if (acceptNextAlert) {
          alert.accept();
        } else {
```

```
            alert.dismiss();
        }
        return alertText;
    } finally {
      acceptNextAlert = true;
    }
  }
}
```

2.6 – Part A Code Listings

2.6.1 – index.html

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta name="viewport"
content="width=device-width, initial-scale=1,
maximum-scale=1, minimum-scale=1, user-
scalable=no, minimal-ui">
    <meta name="mobile-web-app-capable"
content="yes">
    <meta name="apple-mobile-web-app-
capable" content="yes">
    <meta name="apple-mobile-web-app-
status-bar-style" content="black">
    <meta name="theme-color"
content="#2196f3">
    <title>Bicycle</title>
    <!-- Path to Framework7 Library CSS-->
    <link rel="stylesheet"
href="node_modules/framework7/dist/css/fr
amework7.material.min.css">
    <link rel="stylesheet"
href="node_modules/framework7/dist/css/fr
amework7.material.colors.min.css">
  </head>
  <body class="theme-brown">
    <!-- Status bar overlay for fullscreen mode--
>
    <div class="statusbar-overlay"></div>
    <div class="panel-overlay"></div>
    <div class="panel panel-left panel-cover">
     <div class="view navbar-fixed" data-
page="panel-left">
      <div class="pages">
       <div data-page="panel-left"
class="page">
        <div class="navbar">
         <div class="navbar-inner">
          <div class="center">Side Menu</div>
         </div>
        </div>
        <div class="page-content">
         <div class="content-block">
          <p>
            You can close this by clicking
outside or on this link:
            <a href="#" class="close-
panel">close me</a>
```

```
            Please navigate to the required
page.
          </p>
         </div>
         <div class="content-block-title">Side
Panel Menu</div>
         <div class="list-block">
          <ul>
           <li><a href="index.html"
class="item-link close-panel">
            <div class="item-content">
             <div class="item-inner">
              <div class="item-
title">Home</div>
             </div>
            </div>
           </a>
           </li>
           <li><a href="bikes.html" data-
context-name="bikelist" class="item-link
close-panel">
            <div class="item-content">
             <div class="item-inner">
              <div class="item-
title">Bicycles</div>
             </div>
            </div>
           </a>
           </li>
           <li><a href="safety.html"
class="item-link close-panel">
            <div class="item-content">
             <div class="item-inner">
              <div class="item-
title">Maintenance</div>
             </div>
            </div>
           </a>
           </li>
           <li><a href="safetyroutine.html" data-
context-name="checkpage" class="item-link
close-panel">
            <div class="item-content">
             <div class="item-inner">
              <div class="item-title">Add Safety
Check</div>
             </div>
            </div>
           </a>
```

```
        </li>
        <li><a href="checkpast.html" data-
contect-name="checkpage" class="item-link
close-panel">
          <div class="item-content">
            <div class="item-inner">
              <div class="item-title">Past Safety
Checks</div>
            </div>
          </div>
        </a>
        </li>
        <li><a href="about.html" data-contect-
name="checkpage" class="item-link close-
panel">
          <div class="item-content">
            <div class="item-inner">
              <div class="item-title">About the
App</div>
            </div>
          </div>
        </a>
        </li>
      </ul>
    </div>
    </div>
  </div>
</div>
</div>
</div>
```

```
    <!-- Views-->
    <div class="views">
      <!-- Your main view, should have "view-
main" class-->
      <div class="view view-main">
        <!-- Top Navbar-->
        <div class="navbar">
          <div class="navbar-inner">
            <div class="left"></div>

            <div class="right">
              <a href="#" class="link open-panel
icon-only">
                <i class="icon icon-bars"></i>
              </a>
            </div>

          </div>
```

```
      </div>

      <div class="pages navbar-through
toolbar-through">

        <!-- Index Page-->
        <div data-page="index" class="page">
          <div class="page-content">
            <div class="content-block-
title">Welcome To Bike Safety</div>
            <div class="content-block">
              <h1>My Cycling Companion</h1>
              <img src="images/road-cycling.jpg"
style="width:100%">
            </div>
            <div class="list-block">
              <ul>
                <li><a href="bikes.html" data-
context-name="bikelist" class="item-link
item-content">
                  <div class="item-inner">
                    <div class="item-
title">Bicycles</div>
                  </div>
                </a></li>
                <li><a href="safety.html" data-
context-name="checkpage" class="item-link
item-content">
                  <div class="item-inner">
                    <div class="item-
title">Maintenance</div>
                  </div>
                </a></li>
                <li><a href="about.html" data-
contect-name="checkpage" class="item-link
item-content">
                  <div class="item-inner">
                    <div class="item-title">About
the App</div>
                  </div>
                </a>
                </li>
              </ul>
            </div>

          </div>
        </div>
      </div>
    </div>
  </div>
  <!-- Path to Framework7 Library JS-->
```

```
<script type="text/javascript"
src="node_modules/framework7/dist/js/fram
ework7.min.js"></script>
        <!-- Path to your app js-->
<script type="text/javascript" src="js/my-
app.js"></script>
        <!-- JQUERY-->
<script src="http://code.jquery.com/jquery-
1.12.0.min.js"></script>
<script src="http://code.jquery.com/jquery-
migrate-1.2.1.min.js"></script>
        <script type="text/jquery"
src="node_modules/jquery/dist/jquery.js"></
script>

  </body>
</html>
```

2.6.2 – about.html

```
<div class="navbar">

  <div class="navbar-inner">

    <div class="left sliding"><a href="#"
class="back link"> <i class="icon icon-
back"></i><span>Back</span></a></div>

    <div class="center">About</div>

    <div class="right sliding">

      <a href="#" class="link open-panel icon-
only"></a>

    </div>

  </div>

</div>

<div class="pages">

  <div data-page="bikelist" class="page">

   <div class="page-content">

     <div class="content-block-
title">About</div>

      <div class="content-block">

       <h1> About the App and Author</h1>

       <div class="card ks-card-header-pic">
```

```
      <div valign="bottom" class="card-header
color-white no-border"><img
src="images/NewYork.png" alt="Lewis Allan in
Times Square" width="100%"></div>

      <div class="card-content">

      <div class="card-content-inner">

      <p>This app has been developed by
Lewis Allan for the purpose of bike safety.

       Users can check on bikes and parts as
well as recording bike safety checks

       on their own bike and then viewing
all entered information on their own
bike.</p>


       <p>

        Version 1.0.0 Created by Lewis
Allan. My Cycling Companion &copy

       </p>

       </div>

       </div>

       </div>

      </div>


  </div>

</div>

</div>
```

2.6.3 – bikes.html

```
<div class="navbar">

  <div class="navbar-inner">

    <div class="left"><a href="#" class="back
link"> <i class="icon icon-
back"></i><span>Back</span></a></div>

    <div class="centre">Bike Category</div>

    <div class="right">
```

```html
    <a href="#" class="link open-panel icon-only"></a>
  </div>
 </div>
</div>
<div class="pages">
 <div data-page="bikelist" class="page">
  <div class="page-content">
   <div class="content-block-title">Choose a bicycle</div>
   <div class="list-block">
    <ul>{{#each this}}
     <li>
      <a href="detail.html" class="item-content item-link" data-context-name="bikelist.{{@index}}">
       <div class="item-inner">
        <div class="item-title">{{Bicycle}}</div>
       </div>
      </a>
     </li>{{/each}}
    </ul>
   </div>
  </div>
 </div>
</div>
```

2.6.4 – bikes.json

```json
[
 {
   "Id": 1,
   "Bicycle": "Adult Tricycle",
   "Model": "Kentex Classic",
   "Brakes": "Front Brake: V, Rear Brake: Drum",
   "Crankset": "Shimano Saint Cranks - 175mm",
   "Handlebars": "Classic",
   "Derailleurs": "Shimano 6 speed",
   "Saddle": "Kentex Standard Adult Black, 11.75inch",
   "Image": "<img src='images/Tricycle.jpg' alt='Mountain Bike' width='100%'>"
 },
 {
   "Id": 2,
   "Bicycle": "BMX",
   "Model": "Fit Conway 2 Freecoaster",
   "Brakes": "Removable Mounts",
   "Crankset": "Sealed Mid BB 8sp tubular 3pc (175mm long)",
   "Handlebars": "4130  Crmo 9inch rise",
   "Derailleurs": "25t-9t",
   "Saddle": "Fit Barstool textured Pivotal",
   "Image": "<img src='images/BMX.jpg' alt='Mountain Bike' width='100%'>"
 },
 {
   "Id": 3,
   "Bicycle": "City Bike",
   "Model": "Fuji Tread 1.3 Gravel",
   "Brakes": "Tektro Mira, mechanical disc, 160mm/140mm rotors",
   "Crankset": "Oval Concepts 520, forged 6066 arms, 50/34T",
   "Handlebars": "Oval Concepts 310, 6061 alloy, 3108mm, +/-7",
```

```
      "Derailleurs": "Front: Shimano Sora, Rear:
Shimano Sora, 9speed",

   "Saddle": "Oval Concepts P300 with Steel
Rails",

   "Image": "<img src='images/City.jpg'
alt='Mountain Bike' width='100%'>"

 },

 {

   "Id": 4,

   "Bicycle": "Cruiser Bikes",

   "Model": "Hornet",

   "Brakes": "Coaster",

   "Crankset": "3-piece alloy 42T",

   "Handlebars": "Cruiser steel, 25.4",

   "Derailleurs": "N/A",

   "Saddle": "Schwinn Classic Cruiser Spring",

   "Image": "<img src='images/Cruiser.jpg'
alt='Mountain Bike' width='100%'>"

 },

 {

   "Id": 5,

   "Bicycle": "Folding Bikes",

   "Model": "Carrera Transit",

   "Brakes": "V-Brakes",

   "Crankset": "Shimano Saint Cranks -
175mm",

   "Handlebars": "540mm steel handlebars",

   "Derailleurs": "Shimano Revo Shifter",

   "Saddle": "Black Comfort Saddle",

   "Image": "<img src='images/Folding.jpg'
alt='Mountain Bike' width='100%'>"

 },

 {
```

```
   "Id": 6,

   "Bicycle": "Hybrid Bikes",

   "Model": "Cube Stereo 120 HPA Pro 500
29",

   "Brakes": "Magura MT2, Hydr Disc Brake
180",

   "Crankset": "KMC X11",

   "Handlebars": "Cube Rise Trail Bar Pro,
740mm",

   "Derailleurs": "Rear Shimano XT, RD-
M8000-GS, ShadowPlus, 11speed",

   "Saddle": "Cube Active 1.1",

   "Image": "<img src='images/Hybrid.jpg'
alt='Mountain Bike' width='100%'>"

 },

 {

   "Id": 7,

   "Bicycle": "Mountain Bikes",

   "Model": ": Vitus Sommet CR Suspension",

   "Brakes": "SRAM Guide R Dydraulic Disc,
180mm Rotor",

   "Crankset": "SRAM PCX1 11speed",

   "Handlebars": "Nukeproof Warhead, 7075
Double Butted Alloy",

   "Derailleurs": "SRAM X1",

   "Saddle": "Vitus Ti Rail",

   "Image": "<img src='images/Mountain.jpg'
alt='Mountain Bike' width='100%'>"

 },

 {

   "Id": 8,

   "Bicycle": "Road Bikes",

   "Model": "Cube Peloton Pro Triple",

   "Brakes": "Shimano Sora BR-3500",
```

```
    "Crankset": "KMC X9",

    "Handlebars": "CUBE Compact Race Bar",

    "Derailleurs": "Front: Shimano Sora FD-
3503BL, Clamp 34.9mm, 9speed",

    "Saddle": "CUBE RP 1.0",

    "Image": "<img src='images/Road.jpg'
alt='Mountain Bike' width='100%'>"

 },
 {

    "Id": 9,

    "Bicycle": "Tandem Bikes",

    "Model": "Orbit Velocity Sport",

    "Brakes": "Bengal 203mm disc, Shimano
Avid SD5 V",

    "Crankset": "Shimano Deore STI",

    "Handlebars": "Front: Alloy Black, Rear:
Stoker Bars",

    "Derailleurs": "Shimano Deore XT",

    "Saddle": "Velo Comfort D2 Base, front and
rear",

    "Image": "<img src='images/Tandem.jpg'
alt='Mountain Bike' width='100%'>"

 },
 {

    "Id": 10,

    "Bicycle": "TT Bikes",

    "Model": "Cube Aerium HPA Pro",

    "Brakes": "Shimano Ultegra BR-6800",

    "Crankset": "Shimano 105 CS-5800, 11-28",

    "Handlebars": "CUBE Compact Race Bar",

    "Derailleurs": "Front: Shimano FD-6800F,
Rear: ShimanoRD-6800SS 11speed",

    "Saddle": "Selle Italia X1 Road",
```

```
    "Image": "<img src='images/TT.jpg'
alt='Mountain Bike' width='100%'>"

 }

]
```

2.6.5 – detail.html

```
<div class="navbar">
 <div class="navbar-inner">
   <div class="left"><a href="#" class="back
link"> <i class="icon icon-
back"></i><span>Back</span></a></div>
   <div class="right">
    <a href="#" class="link open-panel icon-
only">
     <i class="icon icon-bars"></i></a>
   </div>
 </div>
 <div class="pages">
  <div data-page="bikelist" class="page">
   <div class="page-content">
    <div class="content-block inset">
     <div class="content-block-inner">
      <h3>{{Bicycle}}</h3>

      <ul>
       <li>Model: {{Model}}</li>
       <li>Brakes: {{Brakes}}</li>
       <li>Crankset: {{Crankset}}</li>
       <li>Handlebars: {{Handlebars}}</li>
       <li>Derailleurs: {{Derailleurs}}</li>
       <li>Saddle: {{Saddle}}</li>
      </ul>
     </div>
```

```
    </div>

      <div class="content-block inset">

        <div class="content-block-inner">


          <p>

            {{Image}}

          </p>



        </div>

      </div>

    </div>

  </div>

 </div>

</div>
```

2.6.6 – checkpast.html

```
<div class="navbar">

  <div class="navbar-inner">

    <div class="left"><a href="#" class="back
link"> <i class="icon icon-
back"></i><span>Back</span></a></div>

    <div class="right">

      <a href="#" class="link open-panel icon-
only">

        <i class="icon icon-bars"></i></a>

    </div>

  </div>

</div>

<div class="pages" >

  <div data-page="checkpage" class="page">

  <div class="page-content">

    <div class="content-block-title">Past Safety
Checks</div>
```

```
      <div class="list-block">

        <p>

          <a onclick="LoadData();" href="#"
name="Past" id="Past" class="button button-
fill button-raised">Load Data</a>

          <p>

          <p id="datalist">

          </p>

        </div>

      </div>

    </div>
```

2.6.7 – safety.html

```
<div class="navbar">

  <div class="navbar-inner">

    <div class="left sliding"><a href="#"
class="back link"> <i class="icon icon-
back"></i><span>Back</span></a></div>

      <div class="center">Safety</div>

      <div class="right sliding">

        <a href="#" class="link open-panel icon-
only"></a>

      </div>

    </div>

</div>

<div class="pages">

  <div data-page="bikelist" class="page">

    <div class="page-content">


      <div class="content-block-
title">Maintenance</div>

      <img src="images/safety.png"
style="width:100%;">
```

```
    <div class="content-block inset">

      <div class="content-block-inner">


        <p>

          To ensure safety on every journey,
please make sure to check your bike reguarly.

          Having a fully functional bicycle is key to
avoiding risks of injury when out riding.

          To help keep track of safety routine
checks, please enter the safety check detail
you

          have performed on the 'Add Safety
Check' option below.  You can view your
previous

          checks below by selecting the 'Past
Checks' option.  We recommend regular
checks on your

          bikes chains and gears, the bicycles
suspension and brakes are also very
important to

          your safety when out riding.

        </p>


      </div>

    </div>

    <div class="content-block-title">Safety
Checks</div>

      <div class="list-block">

        <ul>

          <li>

            <a href="checkpast.html" class="item-
content item-link">

              <div class="item-inner">

                <div class="item-title">Past
Checks</div>

              </div>
```

```
            </a>

          </li>

          <li>

            <a href="safetyroutine.html"
class="item-content item-link">

              <div class="item-inner">

                <div class="item-title">Add Safety
Check</div>

              </div>

            </a>

          </li>

        </ul>

      </div>

    </div>

  </div>

</div>
```

2.6.7 – safetyroutine.html

```
  <div class="pages">

    <div data-page="checkpage" class="page">

        <div class="navbar">

    <div class="navbar-inner">

      <div class="left sliding"><a href="#"
class="back link"> <i class="icon icon-
back"></i><span>Back</span></a></div>


      <div class="right sliding">

        <a href="#" class="link open-panel icon-
only">

          <i class="icon icon-bars"></i>

        </a>

      </div>

    </div>
```

```
</div>

    <div class="page-content">

     <div class="content-block-title">Add
Safety Check</div>

                  <div class="list-block">

       <form id="checkform" class ="list-
block">

         <ul>

          <li>

           <div class="item-content">

            <div class="item-inner">

             <div class="item-title
label">Name</div>

               <div class="item-input">

                <input type="text"
placeholder="Your name" name="name"
id="name" required>

                </div>

               </div>

              </div>

             </li>

             <li>

              <div class="item-content">

               <div class="item-media">

                <i class="icon icon-form-
calendar"></i></div>

                 <div class="item-inner">

                  <div class="item-input
label">Date of Safety Check</div>

                   <div class="item-input">

                    <input type="datetime-local"
name="date" id="date" required>

                   </div>

                  </div>
```

```
      </div>

     </li>

     <li>

       <div class="item-content">

        <div class="item-media">

         <i class="icon icon-form-
toggle"></i></div>

          <div class="item-inner">

           <div class="item-title
label">Brakes</div>

            <div class="item-input">

             <label class="label-switch">

              <input type="checkbox"
name="brakes" value="yes" id="brakes">

               <div class="checkbox"></div>

              </label>

             </div>

            </div>

           </div>

          </li>

          <li>

           <div class="item-content">

            <div class="item-media">

             <i class="icon icon-form-
toggle"></i></div>

              <div class="item-inner">

               <div class="item-title
label">Chain</div>

                <div class="item-input">

                 <label class="label-switch">

                  <input type="checkbox"
name="chain" value="yes" id="chain">

                   <div class="checkbox"></div>
```

```
            </label>

        </div>

      </div>

    </div>

  </li>

  <li>

    <div class="item-content">

      <div class="item-media">

        <i class="icon icon-form-
toggle"></i></div>

      <div class="item-inner">

        <div class="item-title
label">Wheels</div>

        <div class="item-input">

          <label class="label-switch">

          <input type="checkbox"
name="wheels" value="yes" id="wheels">

          <div class="checkbox"></div>

          </label>

        </div>

      </div>

    </div>

  </li>

  <li>

    <div class="item-content">

      <div class="item-media">

        <i class="icon icon-form-
toggle"></i></div>

      <div class="item-inner">

        <div class="item-title
label">Tyres</div>

        <div class="item-input">

          <label class="label-switch">
```

```
          <input type="checkbox"
name="tyres" value="yes" id="tyres">

          <div class="checkbox"></div>

          </label>

        </div>

      </div>

    </div>

  </li>

  <li>

    <div class="item-content">

      <div class="item-media">

        <i class="icon icon-form-
toggle"></i></div>

      <div class="item-inner">

        <div class="item-title
label">Steering</div>

        <div class="item-input">

          <label class="label-switch">

          <input type="checkbox"
name="steering" value=" yes " id="steering">

          <div class="checkbox"></div>

          </label>

        </div>

      </div>

    </div>

  </li>

  <li>

    <div class="item-content">

      <div class="item-media">

        <i class="icon icon-form-
toggle"></i></div>

      <div class="item-inner">
```

```html
        <div class="item-title
label">Suspension</div>

        <div class="item-input">

        <label class="label-switch">

        <input type="checkbox"
name="suspension" value="yes"
id="suspension">

        <div class="checkbox"></div>

        </label>

        </div>

        </div>

        </div>

        </li>

        <li class="align-top">

        <div class="item-content">

        <div class="item-media">

        <i class="icon icon-form-
comment"></i></div>

        <div class="item-inner">

        <div class="item-title
label">Description</div>

        <div class="item-input item-
input-field">

        <textarea name="description"
class="resizable" id="description"
required></textarea>

        </div>

        </div>

        </div>

        </li>

        </ul>


    </form>

    <div class="content-block">
```

```html
        <p>

        <a href="#"
name="Save" id="Save" class="button button-
fill button-raised savebutton">Save Data</a>

        <p>

        </div>

    </div>

    </div>

    </div>
```

2.6.8 – my-app.js

```javascript
// Let's register Template7 helper so we can
pass json string in links

Template7.registerHelper('json_stringify',
function (context) {

    return JSON.stringify(context);

});

// Initialize your app

var myApp = new Framework7({

    animateNavBackIcon: true,

    // Enable templates auto precompilation

    precompileTemplates: true,

    // Enabled pages rendering using
Template7

    template7Pages: true

    // Specify Template7 data for pages

 });

// Export selectors engine

var $$ = Dom7;




// Defined as function "getrandom"
```

```javascript
function getBikes() {

 $$.getJSON('bikes.json', function (json) {

  myApp.template7Data.bikelist =   json ;

 });

};

getBikes();


// Add main View

var mainView = myApp.addView('.view-main',
{

   // Enable dynamic Navbar

   dynamicNavbar: true,

});


myApp.onPageInit('checkpage',
function(page){

 addLocalStorage();

});
/*myApp.onPageInit('viewform',
function(page){

        loadLocalStorage();

)};*/

function addLocalStorage(){

 $$('.savebutton').click(function(){

  var formdata =
myApp.formToJSON("#checkform");

  var uniqKey = new Date().getTime();

  localStorage.setItem("Safety Check ID#" +
uniqKey, JSON.stringify(formdata, "\t"));

  alert("Saved Successfully");

 });

};
```

```javascript
function LoadData(){

  var allData = [];

var storage = localStorage;

var i = 0, len = storage.length, key, value;

var list =
document.getElementById("datalist");

var string = "";

for (i; i< len; i++){

  key = storage.key(i);

  value = storage.getItem(key);

//  var obj = eval("(" + value + ")");

obj = JSON.parse(value);


  string += "<div class='card'>" +

  "<div class='card-header'>" + key + "</div>"
+

   "<div class='card-content'>" +

   "<div class='card-content-inner'
id='checks'><h4>Name: </h4><p>" +
obj.name + "</p><br>" +

   "<h4>Date: </h4><p>" + obj.date +
"</p><br>" +

   "<p>Brakes: " + obj.brakes + ", Chain: " +
obj.chains + ", " +

   "Wheels: " + obj.wheels + ", Tyres: " +
obj.tyres +

   ". Steering: " + obj.steering + ",
Suspension: " + obj.suspension + "</p><br>" +

   "<h4>Description: </h4><p>" +
obj.description + "</p>" +

   "</div>" +

  "</div>" +

 "</div>";

}
```

```
list.innerHTML = string;



}
```

2.7 – Part B Code Listings

2.7.1 – home.html

```html
<!DOCTYPE html>

<html lang="en">

<head>

  <title>Pothole Checker</title>


        <meta charset="utf-8">

        <meta name="viewport"
content="width=device-width, initial-
scale=1">


        <!-- Latest compiled and minified CSS
-->

        <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap.min.css"

        integrity="sha512-
dTfge/zgoMYpP7QbHy4gWMEGsbsdZeCXz7irI
tjcC3sPUFtf0kuFbDz/ixG7ArTxmDjLXDmezHub
eNikyKGVyQ==" crossorigin="anonymous">


        <!-- Optional theme -->

        <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap-theme.min.css"

        integrity="sha384-
aUGj/X2zp5rLCbBxumKTCw2Z50WgIr1vs/PFN
4praOTvYXWlVyh2UtNUU0KAUhAX"
crossorigin="anonymous">


        <!-- Latest compiled and minified
JavaScript -->
```

```html
        <script
src="https://ajax.googleapis.com/ajax/libs/jqu
ery/1.11.3/jquery.min.js"></script>

        <script
src="https://maxcdn.bootstrapcdn.com/boots
trap/3.3.5/js/bootstrap.min.js"

        integrity="sha512-
K1qjQ+NcF2TYO/eI3M6v8EiNYZfA95pQumfvc
VrTHtwQVDG+aHRqLi/ETn2uB+1JqwYqVG3LIv
dm9lj6imS/pQ=="
crossorigin="anonymous"></script>



  <!--node modules -->

  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.*">

  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.min.*">

  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.*.map">

  <script
src="node_modules/bootstrap/dist/js/bootstr
ap.js"></script>

  <script
src="node_modules/bootstrap/dist/js/bootstr
ap.min.js"></script>

  <script
src="node_modules/bootstrap/dist/js/npm.js
"></script>


  <!-- JQUERY-->

<script src="http://code.jquery.com/jquery-
1.12.0.min.js"></script>

<script src="http://code.jquery.com/jquery-
migrate-1.2.1.min.js"></script>
```

```html
<script type="text/jquery"
src="node_modules/jquery/dist/jquery.js"></
script>



</head>

<body>

  <!--navigation bar header-->

<div id="custom-bootstrap-menu"
class="navbar navbar-default "
role="navigation">

  <div class="container-fluid"
style="background-color:#fd0000;">

    <div class="navbar-header"><a
class="navbar-brand" style="color:white;"
href="#">Pothole Checker</a>

      <button type="button"
style="background-color:white;"
class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-menubuilder"><span
class="sr-only">Toggle navigation</span>

      <span class="icon-bar"></span><span
class="icon-bar"></span><span class="icon-
bar"></span>

      </button>

    </div>

    <div class="collapse navbar-collapse
navbar-menubuilder">

      <ul class="nav navbar-nav navbar-left">

        <li style="background-
color:#fd7a74;">

          <a style="color:white;"
href="#">Home</a>

        </li>

        <li><a style="color:white;"
href="report.html">Report a Pothole</a>

        </li>
```

```html
        <li><a style="color:white;"
href="potholes.html">Find Potholes</a>

        </li>

      </ul>

    </div>

  </div>
</div>



<!--content goes here-->
<div class="container">

  <div class="row">

    <div class="col-md-3"></div>

    <div class="col-md-8">

      <h1>Welcome To Pothole Checker!</h1>

    </div>

    <div class="col-md-2"
style="padding:1px;"></div>

  </div>

  <div class="row" style="padding:5px;">

  <p>

    Hello and welcome to the Pothole
Checker.  If you are going out cycling,

    please check for known potholes for your
own safety.  To help out your fellow

    cyclists, please make a note of when you
find any damages to the road surface,

    potholes and so on by adding the damages
to this app for all to see.  Please have

    your location setting turned on so we can
get your exact location when entering the

    information.

  </p>
  </div>
```

```html
</div>

<div id="myCarousel" class="carousel slide">
    <ol class="carousel-indicators">
        <li data-target="#myCarousel" data-slide-to="0" class="active"></li>
        <li data-target="#myCarousel" data-slide-to="1"></li>
        <li data-target="#myCarousel" data-slide-to="2"></li>
        <li data-target="#myCarousel" data-slide-to="3"></li>
    </ol>

    <div class="carousel-inner">
        <div class="item active">
            <img src = "images/pothole1.jpg" alt="pothole" class="img-responsive" style="width:100%;">

            <div class="carousel-caption">

                <h5>Pothole</h5>

            </div>

        </div>

        <div class="item">
            <img src = "images/pothole2.jpg" alt="pothole" class="img-responsive" style="width:100%;">

            <div class="carousel-caption">

                <h5>Pothole</h5>

            </div>

        </div>

        <div class="item">
            <img src = "images/pothole3.jpg" alt="pothole" class="img-responsive" style="width:100%;">

            <div class="carousel-caption">

                <h5>Pothole</h5>

            </div>
        </div>

        <div class="item">
            <img src = "images/damagedroad.jpg" alt="damagedroad" class="img-responsive" style="width:100%;">

            <div class="carousel-caption">

                <h5>Damaged road</h5>

            </div>

        </div>
    </div>
```

```html
                <a class="carousel-control
left" href="#myCarousel" data-slide="prev">

                    <span class="icon-
prev"></span>

            </a>

                <a class="carousel-control
right" href="#myCarousel" data-slide="next">

                    <span class="icon-
next"></span>

            </a>

        </div>

</body>

<!--footer-->

<footer class="footer">

  <div class="container">

    <p class="navbar-text pull-left">Site
Created by Lewis Allan, for cyclist safety.
PotholeChecker &copy</p>

        <p class="navbar-text pull-right"><a
href="admin/adminlogin.html">Admin
Area</a></p>

   </div>

</footer>

</html>
```

2.7.2 – potholes.html

```html
<!DOCTYPE html>

<html lang="en">

<head>

   <title>Pothole Checker</title>


        <meta charset="utf-8">

        <meta name="viewport"
content="width=device-width, initial-
scale=1">
```

```html
        <!-- Latest compiled and minified CSS
-->

        <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap.min.css"

        integrity="sha512-
dTfge/zgoMYpP7QbHy4gWMEGsbsdZeCXz7irl
tjcC3sPUFtf0kuFbDz/ixG7ArTxmDjLXDmezHub
eNikyKGVyQ==" crossorigin="anonymous">


        <!-- Optional theme -->

        <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap-theme.min.css"

        integrity="sha384-
aUGj/X2zp5rLCbBxumKTCw2Z50Wglr1vs/PFN
4praOTvYXWlVyh2UtNUU0KAUhAX"
crossorigin="anonymous">


        <!-- Latest compiled and minified
JavaScript -->

        <script
src="https://ajax.googleapis.com/ajax/libs/jqu
ery/1.11.3/jquery.min.js"></script>

        <script
src="https://maxcdn.bootstrapcdn.com/boots
trap/3.3.5/js/bootstrap.min.js"

        integrity="sha512-
K1qjQ+NcF2TYO/el3M6v8EiNYZfA95pQumfvc
VrTHtwQVDG+aHRqLi/ETn2uB+1JqwYqVG3Llv
dm9lj6imS/pQ=="
crossorigin="anonymous"></script>


 <!--node modules -->

 <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.*">
```

```html
  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.min.*">

  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.*.map">

  <script
src="node_modules/bootstrap/dist/js/bootstr
ap.js"></script>

  <script
src="node_modules/bootstrap/dist/js/bootstr
ap.min.js"></script>

  <script
src="node_modules/bootstrap/dist/js/npm.js
"></script>


  <!-- JQUERY-->

 <script src="//code.jquery.com/jquery-
1.10.2.js"></script>

  <script
src="//code.jquery.com/ui/1.11.4/jquery-
ui.js"></script>

<script src="http://code.jquery.com/jquery-
1.12.0.min.js"></script>

<script src="http://code.jquery.com/jquery-
migrate-1.2.1.min.js"></script>

<script
src="node_modules/jquery/dist/jquery.js"></
script>

<style>

#map {

    height: 100%;

  }

  </style>


</head>

<body>
```

```html
  <!--navigation bar header-->

<div id="custom-bootstrap-menu"
class="navbar navbar-default "
role="navigation">

  <div class="container-fluid"
style="background-color:#fd0000;">

    <div class="navbar-header"><a
class="navbar-brand" style="color:white;"
href="home.html">Pothole Checker</a>

      <button type="button"
style="background-color:white;"
class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-menubuilder"><span
class="sr-only">Toggle navigation</span>

        <span class="icon-bar"></span><span
class="icon-bar"></span><span class="icon-
bar"></span>

      </button>

    </div>

    <div class="collapse navbar-collapse
navbar-menubuilder">

      <ul class="nav navbar-nav navbar-left">

        <li>

         <a style="color:white;"
href="home.html">Home</a>

        </li>

        <li><a style="color:white;"
href="report.html">Report a Pothole</a>

        </li>

        <li style="background-
color:#fd7a74;"><a style="color:white;"
href="potholes.html">Find Potholes</a>

        </li>

      </ul>

    </div>

  </div>

</div>
```

```html
<!--content here-->
<div class="container">
<h1>Find Potholes in your area!</h1>


<div class="list-group" id="Locations">
</div>



<div id="map" style="width:100%;
height:300px;"></div>


        <h1>Any on your Route?</h1>
        <table class="table table-hover"
id="myTable" style="100%;">
                <thead>
                        <tr>
                                <th>#</th>

        <th>Street</th>


        <th>Postcode</th>


        <th>Status</th>
                        </tr>
                </thead>
                <tbody id="locationdata">


                </tbody>
        </table>
<script async defer

src="https://maps.googleapis.com/maps/api/j
```

```html
s?key=AIzaSyBMS1dwEZbhLrsUyO48pGUpes-
AeNWRW8Y&callback=initMap">
</script>
<script>
        var locat = [];
        LoadData(locat);
function setMarkers(map) {
        console.log(locat);
        //console.log(Lng);
  // Adds markers to the map.


  // Marker sizes are expressed as a Size of X,Y
where the origin of the image
  // (0,0) is located in the top left of the image.


  // Origins, anchor positions and coordinates
of the marker increase in the X
  // direction to the right and in the Y direction
down.
  var image = {
    url:
'https://developers.google.com/maps/docum
entation/javascript/examples/full/images/bea
chflag.png',
    // This marker is 20 pixels wide by 32 pixels
high.
    size: new google.maps.Size(20, 32),
    // The origin for this image is (0, 0).
    origin: new google.maps.Point(0, 0),
    // The anchor for this image is the base of
the flagpole at (0, 32).
    anchor: new google.maps.Point(0, 32)
  };
```

```javascript
  // Shapes define the clickable region of the icon. The type defines an HTML

  // <area> element 'poly' which traces out a polygon as a series of X,Y points.

  // The final coordinate closes the poly by connecting to the first coordinate.

  var shape = {

    coords: [1, 1, 1, 20, 18, 20, 18, 1],

    type: 'poly'

  };


  for (var i = 0; i < locat.length; i++) {

    var latlng = new google.maps.LatLng(locat[i].lat, locat[i].lng)


    var marker = new google.maps.Marker({

      position: latlng,

      map: map,

      icon: image,

      shape: shape

          });

  }

}

function LoadData(locat){

var string = "";

        var url = 'http://localhost:3000/potholes?callback=?';


      $.getJSON(url, null, function(data){


for(var i = 0; i < data.length; i++){

        var latitude = data[i].latitude;

        var longitude = data[i].longitude;

        var street = data[i].streetname;

        var name = data[i].name;

        var postcode = data[i].postcode;

        var pstatus = data[i].pstatus;

        locat.push({lat: latitude, lng: longitude, name: name, street: street, postcode: postcode, pstatus: pstatus});

        string += "<tr><th scope='row'>" + (i+1) + "</th><td>" + street + "</td>" +

        "<td>" + postcode + "</td><td>" + pstatus + "</td></tr>";


      }

      document.getElementById('locationdata').innerHTML = string;

      console.log(locat);

      });

}

function initMap() {

  var map = new google.maps.Map(document.getElementById('map'), {

    zoom: 10,

    center: {lat: 51.49960391305518, lng:-0.27914409637446624},

        disableDefaultUI: false,

        scrollwheel: false,

        draggable: true,

        mapTypeId: google.maps.MapTypeId.HYBRID,

        zoomControlOptions:{

        position: google.maps.ControlPosition.LEFT_BOTTOM,

        style: google.maps.ZoomControlStyle.DEFAULT
```

```
        },

        panControlOptions: {

                position:
google.maps.ControlPosition.LEFT_BOTTOM

                }

 });

 setMarkers(map);

}


</script>

</div>


</body>

<!--footer-->

<footer class="footer">

  <div class="container">

    <p class="navbar-text pull-left">Site
Created by Lewis Allan, for cyclist safety.
PotholeChecker &copy</p>

        <p class="navbar-text pull-right"><a
href="admin/adminlogin.html">Admin
Area</a></p>

        </div>

</footer>

</html>
```

2.7.3 – report.html

```
<!DOCTYPE html>

<html lang="en">

<head>

    <title>Pothole Checker</title>


        <meta charset="utf-8">
```

```
        <meta name="viewport"
content="width=device-width, initial-
scale=1">


        <!-- Latest compiled and minified CSS
-->

        <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap.min.css"

        integrity="sha512-
dTfge/zgoMYpP7QbHy4gWMEGsbsdZeCXz7irl
tjcC3sPUFtf0kuFbDz/ixG7ArTxmDjLXDmezHub
eNikyKGVyQ==" crossorigin="anonymous">


        <!-- Optional theme -->

        <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap-theme.min.css"

        integrity="sha384-
aUGj/X2zp5rLCbBxumKTCw2Z50WgIr1vs/PFN
4praOTvYXWlVyh2UtNUU0KAUhAX"
crossorigin="anonymous">


        <!-- Latest compiled and minified
JavaScript -->

        <script
src="https://ajax.googleapis.com/ajax/libs/jqu
ery/1.11.3/jquery.min.js"></script>

        <script
src="https://maxcdn.bootstrapcdn.com/boots
trap/3.3.5/js/bootstrap.min.js"

        integrity="sha512-
K1qjQ+NcF2TYO/eI3M6v8EiNYZfA95pQumfvc
VrTHtwQVDG+aHRqLi/ETn2uB+1JqwYqVG3LIv
dm9lj6imS/pQ=="
crossorigin="anonymous"></script>


 <!--node modules -->
```

```html
  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.*">

  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.min.*">

  <link rel="stylesheet"
src="node_modules/bootstrap/dist/css/boots
trap.*.map">

  <script
src="node_modules/bootstrap/dist/js/bootstr
ap.js"></script>

  <script
src="node_modules/bootstrap/dist/js/bootstr
ap.min.js"></script>

  <script
src="node_modules/bootstrap/dist/js/npm.js
"></script>


  <!-- JQUERY-->
<script src="http://code.jquery.com/jquery-
1.12.0.min.js"></script>

<script src="http://code.jquery.com/jquery-
migrate-1.2.1.min.js"></script>

<script type="text/jquery"
src="node_modules/jquery/dist/jquery.js"></
script>


</head>
<body>

  <!--navigation bar header-->
<div id="custom-bootstrap-menu"
class="navbar navbar-default "
role="navigation">

  <div class="container-fluid"
style="background-color:#fd0000;">
```

```html
    <div class="navbar-header"><a
class="navbar-brand" style="color:white;"
href="home.html">Pothole Checker</a>

    <button type="button"
style="background-color:white;"
class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-menubuilder"><span
class="sr-only">Toggle navigation</span>

    <span class="icon-bar"></span><span
class="icon-bar"></span><span class="icon-
bar"></span>

    </button>

  </div>

  <div class="collapse navbar-collapse
navbar-menubuilder">

    <ul class="nav navbar-nav navbar-left">

      <li>

        <a style="color:white;"
href="home.html">Home</a>

      </li>

      <li style="background-
color:#fd7a74;"><a style="color:white;"
href="report.html">Report a Pothole</a>

      </li>

      <li><a style="color:white;"
href="potholes.html">Find Potholes</a>

      </li>

    </ul>

  </div>

 </div>

</div>


<!--content here-->

<div class="container">

<h4>Please have your location switched on
for exact location match</h4>
```

```html
        <button onclick="getLocation()"
type="save" id="Save" name="save"
value="save"    class="btn btn-default">Get
Location</button>

<form name="myForm" onsubmit="return
validateForm()">

 <div class="form-group">

   <label for="exampleInputName">Full
Name</label>

   <input type="text" class="form-control"
id="name" placeholder="Full Name"
name="name" required>

  </div>

   <div class="form-group">

   <label
for="exampleInputStreetName">Street
Name</label>

   <input type="text" class="form-control"
id="streetname" placeholder="Street Name"
name="streetname" required>

  </div>

   <div class="form-group">

   <label for="exampleInputPostCode">Post
Code</label>

   <input type="text" class="form-control"
id="postcode" placeholder="Post Code"
name="postcode" required>

  </div>

  <div class="form-group">

   <label for="exampleInputStatus">Status of
Pothole</label>

   <input type="text" class="form-control"
id="pstatus" placeholder="Status"
name="pstatus" required>

  </div>

  <!--<div class="form-group">
```

```html
   <label for="exampleInputFile">Image
Upload</label>

   <input type="file" id="InputFile"
name="file">

   <p class="help-block">If you have any
image of damages, upload here.</p>

  </div>-->

  <div class="form-group">

  <label>Location Coordinates</label>

       <input type="text" name="latitude"
class="form-control" id="latitude"
placeholder="Latitude" readonly required>

       <input type="text" class="form-
control" id="longitude" name="longitude"
placeholder="Longitude" readonly required>

       </div>

  <button id="Submit" name="submit"
value="submit" class="btn btn-default
submit">Submit</button>

</form>

<script>

$('.submit').on('click', function(){

 $.ajax({

  type: 'POST',

  url: 'http://localhost:3000/insert',

  data: {

              name: $('#name').val(),

              latitude: $('#latitude').val(),

              longitude:
$('#longitude').val(),

              postcode: $('#postcode').val(),

              streetname:
$('#streetname').val(),
```

```
                pstatus: $('#pstatus').val()

            },

    success: function(cb){

      console.log('sent data to server');

      console.log(cb);

    },

    error: function(){

      //alert('error1');

    }

  });

});


</script>

</div>



<!-- Path to sqlite.js-->

    <script type="text/javascript" src="js/api-sqlite.js"></script>

    <script type="text/javascript" src="js/geolocation.js"></script>


</body>

<!--footer-->

<footer class="footer">

  <div class="container">

    <p class="navbar-text pull-left">Site Created by Lewis Allan, for cyclist safety. PotholeChecker &copy</p>

        <p class="navbar-text pull-right"><a href="admin/adminlogin.html">Admin Area</a></p>

        </div>
```

```
</footer>

</html>
```

2.7.4 – adminlogin.html

```
<!DOCTYPE html>

<html lang="en">

<head>

        <title>Admin Login</title>

        <meta charset="utf-8">

        <meta name="viewport" content="width=device-width, initial-scale=1">

        <link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.4/css/bootstrap.min.css">

        <script src="http://ajax.googleapis.com/ajax/libs/jquery//1.11.3/jquery.min.js"></script>

        <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.5/js/bootstrap.min.js"></script>


<!--node modules-->

  <link rel="stylesheet" src="../node_modules/bootstrap/dist/css/bootstrap.*">

  <link rel="stylesheet" src="../node_modules/bootstrap/dist/css/bootstrap.min.*">

  <link rel="stylesheet" src="../node_modules/bootstrap/dist/css/bootstrap.*.map">

  <script src="../node_modules/bootstrap/dist/js/bootstrap.js"></script>

  <script src="../node_modules/bootstrap/dist/js/bootstrap.min.js"></script>
```

```html
  <script
src="../node_modules/bootstrap/dist/js/npm.
js"></script>


  <!-- JQUERY-->

<script src="http://code.jquery.com/jquery-
1.12.0.min.js"></script>

<script src="http://code.jquery.com/jquery-
migrate-1.2.1.min.js"></script>

<script
src="../node_modules/jquery/dist/jquery.js">
</script>


</head>
<body>
        <div class="container">
                <div class="modal-dialog">
                        <div class="modal-
content">
                                <div
class="modal-header">

        <h1>Admin</h1>
                                </div>
                                <div
class="modal-body">
                                        <form
class="col-md-12 center-block">

        <div class="form-group">


                <input type="text" id="id"
class="form-control input-lg"
placeholder="Username">

        </div>

        <div class="form-group">


                <input type="password"
id="pass" class="form-control input-lg"
placeholder="Password">


        </div>


        <div class="form-group">


                <input type="button"
onclick="pasuser(this.form)" class="btn btn-
block btn-lg btn-primary" value="Login">


                <span class="pull-right"><a
href="#">Register</a></span><span><a
href="#">Forgot Password</a></span>


        </div>

        </form>
                                                <div
class="modal-footer">

        <div class="col-md-12">


                <button class="btn"><a
href="../home.html">Cancel</a></button>

        </div>

        </div>
                                        </div>
                                </div>

        </div>
        </div>
```

```
</body>

<script>

function pasuser(form) {

if (form.id.value=="admin") {

if (form.pass.value=="admin") {

location="adminhome.html"

} else {

alert("Invalid Password")

}

} else {  alert("Invalid UserID")

}

}

</script>

<!--footer-->

<footer class="footer">

  <div class="container">

    <p class="navbar-text pull-left">Site
Created by Lewis Allan, for cyclist safety.
PotholeChecker &copy</p>

  </div>

</footer>

</html>
```

2.7.5 – adminhome.html

```
<!DOCTYPE html>

<html lang="en">

<head>

  <title>Admin Domain</title>


      <meta charset="utf-8">

      <meta name="viewport"
content="width=device-width, initial-
scale=1">
```

```
      <!-- Latest compiled and minified CSS
-->

      <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap.min.css"

      integrity="sha512-
dTfge/zgoMYpP7QbHy4gWMEGsbsdZeCXz7irI
tjcC3sPUFtf0kuFbDz/ixG7ArTxmDjLXDmezHub
eNikyKGVyQ==" crossorigin="anonymous">


      <!-- Optional theme -->

      <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/boo
tstrap/3.3.5/css/bootstrap-theme.min.css"

      integrity="sha384-
aUGj/X2zp5rLCbBxumKTCw2Z50WgIr1vs/PFN
4praOTvYXWlVyh2UtNUU0KAUhAX"
crossorigin="anonymous">


      <!-- Latest compiled and minified
JavaScript -->

      <script
src="https://ajax.googleapis.com/ajax/libs/jqu
ery/1.11.3/jquery.min.js"></script>

      <script
src="https://maxcdn.bootstrapcdn.com/boots
trap/3.3.5/js/bootstrap.min.js"

      integrity="sha512-
K1qjQ+NcF2TYO/eI3M6v8EiNYZfA95pQumfvc
VrTHtwQVDG+aHRqLi/ETn2uB+1JqwYqVG3LIv
dm9lj6imS/pQ=="
crossorigin="anonymous"></script>


      <!--node modules -->

  <link rel="stylesheet"
src="../node_modules/bootstrap/dist/css/boo
tstrap.*">
```

```
  <link rel="stylesheet"
src="../node_modules/bootstrap/dist/css/boo
tstrap.min.*">

  <link rel="stylesheet"
src="../node_modules/bootstrap/dist/css/boo
tstrap.*.map">

  <script
src="../node_modules/bootstrap/dist/js/boot
strap.js"></script>

  <script
src="../node_modules/bootstrap/dist/js/boot
strap.min.js"></script>

  <script
src="../node_modules/bootstrap/dist/js/npm.
js"></script>


  <!-- JQUERY-->
<script src="http://code.jquery.com/jquery-
1.12.0.min.js"></script>

<script src="http://code.jquery.com/jquery-
migrate-1.2.1.min.js"></script>

<script
src="../node_modules/jquery/dist/jquery.js">
</script>


</head>

<body>

  <!--navigation bar header-->
<div id="custom-bootstrap-menu"
class="navbar navbar-default "
role="navigation">

  <div class="container-fluid"
style="background-color:#black;">

    <div class="navbar-header"><a
class="navbar-brand" style="color:black;"
href="adminhome.html">Admin Domain</a>

      <button type="button"
style="background-color:white;"
```

```
class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-menubuilder"><span
class="sr-only">Toggle navigation</span>

      <span class="icon-bar"></span><span
class="icon-bar"></span><span class="icon-
bar"></span>

    </button>

  </div>

  <div class="collapse navbar-collapse
navbar-menubuilder">

    <ul class="nav navbar-nav navbar-left">

      <li  style="background-color:#gray;">

        <a style="color:black;"
href="adminhome.html">Admin Home</a>

      </li>

      <li><a style="color:black;"
href="../home.html">Non-Admin Home</a>

      </li>

      <li><a style="color:black;"
href="#"></a>

      </li>

    </ul>

  </div>

 </div>

</div>


<!--content here-->
<div class="container">

      <h1>Admin Access Only!</h1>

      <table class="table table-hover"
id="myTable" style="100%;">

            <thead>

                  <tr>

                        <th>#</th>
```

```html
				<th>Name</th>

				<th>Street</th>

				<th>Postcode</th>

				<th>Status</th>

				<th>Delete</th>

				<th>Repaired</th>

				<th>Repairing</th>
				</tr>
			</thead>
			<tbody id="locationdata">

			</tbody>
		</table>
<h2>Report Data from Database</h2>
<div class="row">
		<div class="col-md-5">
		<h3>All Latitudes and Longitudes</h3>
			<table id="LatLng" class="table table-hover">
				<thead>
					<tr>

				<th>Latitude</th>

				<th>Longitude</th>
					</tr>
				</thead>
					<tbody id="DataLatLng">

					</tbody>
				</table>
			</div>
			<div class="col-md-7" style="100%;">
			<h3>All Potholes Being Repaired</h3>
				<table id="rep" class="table table-hover">
					<thead>
						<tr>

				<th>Street</th>

				<th>Postcode</th>

				<th>Status</th>
						</tr>
					</thead>
					<tbody id="DataRep">

					</tbody>
				</table>
			</div>
</div>
<div id="map" style="width:100%; height:400px;"></div>
<script async defer

src="https://maps.googleapis.com/maps/api/js?key=AIzaSyBMS1dwEZbhLrsUyO48pGUpes-AeNWRW8Y&callback=initMap">
```

```javascript
</script>

<script>

 var locat = [];

 LoadData(locat);

function LoadData(locat){

        var string = "";

        var url =
'http://localhost:3000/potholes?callback=?';


    $.getJSON(url, null, function(data){


for(var i = 0; i < data.length; i++){

        var latitude = data[i].latitude;

        var longitude = data[i].longitude;

        var street = data[i].streetname;

        var name = data[i].name;

        var postcode = data[i].postcode;

        var pstatus = data[i].pstatus;

        locat.push({lat: latitude, lng:
longitude, name: name, street: street,
postcode: postcode, pstatus: pstatus});

        string += "<tr><th scope='row'>" +
(i+1) + "</th><td>" + name + "</td><td>" +
street + "</td>" +

        "<td>" + postcode + "</td><td>" +
pstatus +

        "</td><td><button
onclick='deleteData(this)'
id='delete'name='delete'>Delete</button></t
d>" +

        "<td><button onclick='repair(this)'
id='repair'
name='repair'>Repair</button></td>" +

        "<td><button
onclick='brepairing(this)' id='repairing'
name='repairing'>Repairing</button></td></t
r>";

        }

        document.getElementById('locationd
ata').innerHTML = string;

        console.log(locat);

        });

}

function deleteData(r){

   var i = r.parentNode.parentNode.rowIndex;

        var name =
document.getElementById("myTable").rows[i]
.cells[1].innerHTML;

        console.log(name);


document.getElementById("myTable").delete
Row(i);


 $.ajax({

  type: 'POST',

  url: 'http://localhost:3000/delete',

  data: {

                name: name

                },

  success: function(cb){

   console.log('sent data to server');

   console.log(cb);

  },

  error: function(){

   //alert('error1');

  }

 });

}
```

```
function repair(r){

   var i = r.parentNode.parentNode.rowIndex;

      var name =
document.getElementById("myTable").rows[i]
.cells[1].innerHTML;

      var pstatus = "Fixed";

      console.log(name);


document.getElementById("myTable").rows[i]
.cells[4].innerHTML = "Fixed";


  $.ajax({

   type: 'POST',

   url: 'http://localhost:3000/update',

   data: {

               name: name,

               pstatus: pstatus

               },

   success: function(cb){

    console.log('sent data to server');

    console.log(cb);

   },

   error: function(){

    //alert('error1');

   }

  });
}
function brepairing(r){

   var i = r.parentNode.parentNode.rowIndex;

      var name =
document.getElementById("myTable").rows[i]
.cells[1].innerHTML;

      var pstatus = "Being Repaired";
```

```
      console.log(name);


document.getElementById("myTable").rows[i]
.cells[4].innerHTML = "Being Repaired";


  $.ajax({

   type: 'POST',

   url: 'http://localhost:3000/update',

   data: {

               name: name,

               pstatus: pstatus

               },

   success: function(cb){

    console.log('sent data to server');

    console.log(cb);

   },

   error: function(){

    //alert('error1');

   }

  });
}
var latlng = [];

LatLong(latlng);

function LatLong(latlng){

var string = "";

      var url
='http://localhost:3000/LatLng?callback=?';


    $.getJSON(url, null, function(data){


               for(var i = 0; i < data.length;
i++){
```

```javascript
                var latitude =
data[i].latitude;

                var longitude =
data[i].longitude;



                latlng.push({lat:
latitude, lng: longitude});

                string += "<tr><td>" +
latitude + "</td><td>" + longitude +
"</td></tr>";

                }


        document.getElementById('DataLatLn
g').innerHTML = string;

        });
}
var repairing = [];

Repairing(repairing);

function Repairing(repairing){

        var string = "";

        var url
='http://localhost:3000/repairing?callback=?';


    $.getJSON(url, null, function(data){


            for(var i = 0; i < data.length;
i++){

                var street =
data[i].streetname;

                var postcode =
data[i].postcode;

                var pstatus =
data[i].pstatus;
```

```javascript
        repairing.push({street: street,
postcode: postcode, pstatus: pstatus});

                string += "<tr><td>" +
street + "</td><td>" + postcode + "</td><td>"
+ pstatus + "</td></tr>";

                }


        document.getElementById('DataRep')
.innerHTML = string;

        });
}
</script>
<script>
var loc = [];

        Load(loc);
function setMarkers(map) {

        console.log(loc);

        //console.log(Lng);

 // Adds markers to the map.


 // Marker sizes are expressed as a Size of X,Y
where the origin of the image

 // (0,0) is located in the top left of the image.


 // Origins, anchor positions and coordinates
of the marker increase in the X

 // direction to the right and in the Y direction
down.

 var image = {

  url:
'https://developers.google.com/maps/docum
entation/javascript/examples/full/images/bea
chflag.png',

   // This marker is 20 pixels wide by 32 pixels
high.
```

```
  size: new google.maps.Size(20, 32),

  // The origin for this image is (0, 0).

  origin: new google.maps.Point(0, 0),

  // The anchor for this image is the base of
the flagpole at (0, 32).

  anchor: new google.maps.Point(0, 32)

 };

  // Shapes define the clickable region of the
icon. The type defines an HTML

  // <area> element 'poly' which traces out a
polygon as a series of X,Y points.

  // The final coordinate closes the poly by
connecting to the first coordinate.

 var shape = {

  coords: [1, 1, 1, 20, 18, 20, 18, 1],

  type: 'poly'

 };


 for (var i = 0; i < locat.length; i++) {

   var latlng = new
google.maps.LatLng(loc[i].lat, loc[i].lng)


  var marker = new google.maps.Marker({

    position: latlng,

    map: map,

    icon: image,

    shape: shape

          });

 }

}

function Load(loc){

var string = "";
```

```
      var url =
'http://localhost:3000/potholes?callback=?';


     $.getJSON(url, null, function(data){


for(var i = 0; i < data.length; i++){

        var latitude = data[i].latitude;

        var longitude = data[i].longitude;

        var street = data[i].streetname;

        var name = data[i].name;

        var postcode = data[i].postcode;

        var pstatus = data[i].pstatus;

        loc.push({lat: latitude, lng: longitude,
name: name, street: street, postcode:
postcode, pstatus: pstatus});


        }

        console.log(locat);

        });

}

function initMap() {

 var map = new
google.maps.Map(document.getElementById(
'map'), {

   zoom: 12,

   center: {lat: 51.49960391305518, lng:-
0.27914409637446624},

        disableDefaultUI: false,

        scrollwheel: false,

        draggable: true,

        mapTypeId:
google.maps.MapTypeId.HYBRID,

        zoomControlOptions:{
```

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```
        position:
google.maps.ControlPosition.LEFT_BOTTOM,

        style:
google.maps.ZoomControlStyle.DEFAULT

        },

        panControlOptions: {

                position:
google.maps.ControlPosition.LEFT_BOTTOM

        }

  });

  setMarkers(map);

}

</script>

</body>
```

```
<!--footer-->

<footer class="footer">

  <div class="container">

    <p class="navbar-text pull-left">Site
Created by Lewis Allan, for cyclist safety.
PotholeChecker &copy</p>

  </div>

</footer>

</html>

<table class="table table-hover">

  ...

</table>
```

2.7.6 – api-sqlite.js

```
var sqlite3 = require('sqlite3').verbose();

var db = new sqlite3.Database('potholesDB');

var multer = require('multer');

var upload = multer();
```

```
db.serialize(function(){

  db.run("CREATE TABLE IF NOT EXISTS
potholes (name TEXT, latitude TEXT, longitude
TEXT, postcode TEXT, streetname TEXT,
pstatus TEXT)");


  //db.run("DELETE FROM potholes");


  //db.run("INSERT INTO potholes (latitude,
longitude, postcode, streetname) VALUES (?,
?, ?, ?, ?, ?)",

//lat, lng, postcode, street);


});


var express = require('express');

var cors = require('cors');

var bodyParser = require('body-parser');

var restapi = express();

restapi.use(cors());

restapi.use(bodyParser.urlencoded());


//display all rows in the table and return as
json

restapi.get('/potholes', function(req, res){

  db.all("SELECT * FROM potholes",
function(err, rows){

    res.jsonp(rows);

  });

});

restapi.get('/LatLng', function(req, res){

        db.all("SELECT latitude, longitude
FROM potholes", function(err, rows){

                res.jsonp(rows);
```

```
        });

    });

    restapi.get('/repairing', function(req, res){

            db.all("SELECT * FROM potholes
    WHERE pstatus = 'Being Repaired'",
    function(err, rows){

                    res.jsonp(rows);

            });

    });

    restapi.get("/files", function(req,res){

     var fs = require('fs');

     fs.realpath('./uploads', function(err, path){

       if(err){

         console.log(err);

         return;

       }

       console.log('The served path is : ' + path);

     });

     fs.readdir('./uploads', function(err, files){

       res.jsonp(files); //return JSON to the user
    containing files.

       if (err) return;

       files.forEach(function(f) {

         console.log('files: ' + f);

       });

     });

    });

    restapi.post('/', multer({dest:
    './uploads/'}).single('upload'),

    function(req,res){

     console.log(req.body);

     console.log(req.file);
```

```
      console.log(req.file.originalname); //shows
    the original name in cli

      res.status(204).end();

    });

    restapi.post('/insert', upload.array(), function
    (req, res, next){

            console.log(req.body.name);

            console.log(req.body.latitude);

            console.log(req.body.longitude);

            console.log(req.body.postcode);

            console.log(req.body.streetname);

            console.log(req.body.pstatus);


      db.run("INSERT INTO potholes (name,
    latitude, longitude, postcode, streetname,
    pstatus) VALUES (?, ?, ?, ?, ?, ?)",

      req.body.name, req.body.latitude,
    req.body.longitude, req.body.postcode,
    req.body.streetname, req.body.pstatus,
    function(error){

        if (error){

         console.err(error);

         res.status(500);

        }

        else{

         res.status(202);

        }

        res.end();

      });

    });

    restapi.post('/delete', upload.array(), function
    (req, res, next){

            console.log(req.body.name);

            console.log(req.body.latitude);
```

```
        console.log(req.body.longitude);

        console.log(req.body.postcode);

        console.log(req.body.streetname);

        console.log(req.body.pstatus);


            db.run("DELETE FROM
potholes Where name = (?)",

            req.body.name,
function(error){

                if (error){

        console.err(error);

        res.status(500);

                }
                else{


        res.status(202);

                }
                res.end();

            });
});
restapi.post('/update', upload.array(),
function (req, res, next){

        console.log(req.body.name);

        console.log(req.body.latitude);

        console.log(req.body.longitude);

        console.log(req.body.postcode);

        console.log(req.body.streetname);

        console.log(req.body.pstatus);


            db.run("UPDATE potholes SET
pstatus = (?) Where name = (?)",
```

```
            req.body.pstatus,
req.body.name, function(error){

                if (error){


        console.err(error);

        res.status(500);

                }
                else{


        res.status(202);

                }
                res.end();

            });
});


restapi.listen(3000);

console.log("Up and running..");
```

2.7.7 – geolocation.js

```
    var save_button =
document.getElementById('Save');

    save_button.onclick = getLocation;

    var uniqKey = new Date().getTime();


        var lat, lng;

    function getLocation(){

        if (navigator.geolocation){


navigator.geolocation.getCurrentPosition(showPosition);

        } else{
```

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```
        alert("Geolocation is not supported by
this browser. ");

    }

  }

  function showPosition(event){

        document.getElementById("latitude")
.value = event.coords.latitude;

        document.getElementById("longitude
").value = event.coords.longitude;

    }
```

2.8 – Project Directory Listings

2.8.1 – Part A

PartA/Images/BMX.jpg, City.jpg, Cruiser.jpg, Folding.jpg, Hybrid.jpg, Mountain.jpg, NewYork.png, road-cycling.jpg, Road.jpg, safety.png, Tandem.jpg, Tricycle.jpg, TT.jpg

PartA/Js/my-app.js

PartA/about.html, bikes.html, bikes.json, checkpast.html, detail.html, index.html, safety.html, safetyroutine.html

2.8.2 – Part B

PartB/admin/adminhome.html, adminlogin.html

PartB/images/damagedroad.jpg, pothole1.jpg, pothole2.jpg, pothole3.jpg

PartB/js/api-sqlite.js, geolocation.js

PartB/home.html, potholes.html, report.html

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