Dash Warning Use Case Testing (UI & UX)

# Sarah’s View of the UI Use Cases (Primary User)

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| **Use Case Name:** Register for Dash Warning | | **ID:** 1 | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah wouldlike to register an account with Dash Warning so that any scanned faults can be saved to her account encase she ever needs to show a mechanic. She also wants to be able to chat / read up about other faults using the forum on the app. | | | |
| **Trigger:** The primary user would need to register with Dash Warning in order to start using the system. | | | |
| **Major Inputs:**  **Description Source**  Full Name Sarah Cullen  Phone Number 086 554 3212  Current Address Dublin 6, Co. Dublin  Postal Code D65Y87G  Password ILoveCars67!  Email Address sarah.cullen@gmail.com | **Major Outputs:**  **Description Source**  Account created System  User System  Password System | | |
| **Major Steps Performed:**   1. Fill out the necessary information the system requires to make him a Dash Warning account. 2. Click the Enter Account button so she can then login to the system. | **Information for Steps:**  The primary user needs the relevant information listed on the create account page in order to create an account.  Username and password will have been generated from the primary user creating an account with Dash Warning and they will now be able to log in.  Returns the user to the log in page. | | |
| **Pre-Conditions:**   1. N/A | **Post-Conditions:**   1. Sarah has created an account with Dash Warning and is able to log into Dash Warning successfully. | | |

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| **Use Case Name:** Log into Dash Warning | | **ID:** 2 | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to log into Dash Warning in order to start tracking any saved scans of faults that have appeared on her car’s dashboard along with view other details like roadside assistance numbers, a forum and some of the most common faults for each colour (Red, Amber & Green). | | | |
| **Trigger:** The primary user logging into Dash Warning | | | |
| **Major Inputs:**  **Description Source**  Username sarah.cullen@gmail.com  Password ILoveCars67! | **Major Outputs:**  **Description Source**  Access to user account, scan System  Option and other pages within Dash Warning. | | |
| **Major Steps Performed:**   1. Fill out the necessary information needed to log into Dash Warning. | **Information for Steps:**  The primary user needs the relevant information they inputted into the register page to log into their Dash Warning account such as, username (email) and password. | | |
| **Pre-Conditions:**   1. N/A | **Post-Conditions:**   1. Sarah has logged into Dash Warning and can access the pages within the system. | | |

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| **Use Case Name:** Scan dashboard fault symbol | | **ID:** 3 | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to scan a fault which is appearing on her car’s dashboard to figure out what the fault means and how to fix it. | | | |
| **Trigger:** The primary user would need to scan fault to see what it means and how to repair. | | | |
| **Major Inputs:**  **Description Source**  Select the scan button so Sarah / System  she can scan a fault symbol on her dashboard to figure out what it means and how to fix it. to | **Major Outputs:**  **Description Source**  Image and description are System  displayed back out so Sarah understands what is wrong along with nearby repair shops in case it is a major fault. She also has the option to save the scan or call roadside assistance. | | |
| **Major Steps Performed:**   1. The user selects the scan button at the bottom of her account page. This then takes her to the scan page where she can scan the fault symbol. 2. The user can see a description of what the fault means, how to fix and be notified of repair shops nearby using gps. | **Information for Steps:**  Go to the user account page, select scan and this will bring them to the scan page. Select scan to scan the fault and then the description will display back out. | | |
| **Pre-Conditions:**   1. N/A | **Post-Conditions:**   1. Sarah has now scanned a fault and received back information about it along with an option to save (if logged in) or to call roadside assistance if needed. She is also recommended nearby repair shops using gps. | | |

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| **Use Case Name:** Save scanned fault | | **ID:** 4 | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to save her scanned fault to her account so she has a history of what faults have appeared on her car so she can show a mechanic when needed. | | | |
| **Trigger:** The primary user needs to have an account and be logged in, in order to save a scanned fault to keep a history. | | | |
| **Major Inputs:**  **Description Source**  Be logged in or have an account Sarah / System  So she can save her scanned fault to keep a history of problems her car may be experienced. | **Major Outputs:**  **Description Source**  The user can view saved System  scans within their account. | | |
| **Major Steps Performed:**  **1.**The user being able to save their scanned fault once logged in. | **Information for Steps:**  The user must have an account and be logged in so she can save her scanned fault. If the user as neither they can’t save the scanned fault. | | |
| **Pre-Conditions:**   1. Must have an account and be logged in, in order to save scanned faults. | **Post-Conditions:**   1. Sarah can save her scanned fault and view them within her user account as she is a user of Dash Warning. | | |

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| **Use Case Name:** Call roadside assistance | | **ID:** 5 | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to call roadside assistance in the case that her fault is red and major or if her car breaks down. | | | |
| **Trigger:** The primary user would like to view the roadside assistance numbers if the fault is red and major or if their car breaks down regardless of them being a user or not. | | | |
| **Major Inputs:**  **Description Source**  View roadside System  assistance numbers | **Major Outputs:**  **Description Source**  Numbers displayed back out to System  Various services. | | |
| **Major Steps Performed:**  **1.**The user can view the roadside assistance page and view the numbers to various services. | **Information for Steps:**  The user is aware of the roadside assistance page and can use it regardless of the fault or if they are a user or not. | | |
| **Pre-Conditions:**   1. The user must have the fault scanned. | **Post-Conditions:**   1. Sarah can now view various roadside assistance numbers to different services when required. | | |

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| **Use Case Name:** View most common faults if offline | | **ID: 6** | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to view the most common faults pre-saved on the app encase she can’t scan due to no Wi-Fi. These will include the most common faults for each bracket (Red, Amber, Green & Electric). | | | |
| **Trigger:** The primary user would like to view what some symbols look and mean by using the pre-saved data on the app. The user would need to have the app open on their phone. | | | |
| **Major Inputs:**  **Description Source**  Select most common faults from navbar System | **Major Outputs:**  **Description Source**  View saved symbols & meanings System | | |
| **Major Steps Performed:**  **1.**The user being able to view the most common faults and their descriptions if required if they can’t scan due to no WI-FI. | **Information for Steps:**  The user can locate the most common page by using the navbar. | | |
| **Pre-Conditions:**   1. N/A | **Post-Conditions:**   1. Sarah can view what the most common faults mean for each bracket (Red, Amber, Green & Electric) when she can’t scan her dashboard due to no WI-FI or to upgrade her knowledge. | | |

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| **Use Case Name:** View Q&A Forum | | **ID: 7** | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to view the Q&A forum so she can read other users car fault issues and post a question if needed. | | | |
| **Trigger:** The primary user would like to view recent Q&As posted to the forum to read up about a fault someone else had and maybe post their own question. | | | |
| **Major Inputs:**  **Description Source**  Select Q&A forum from navbar System | **Major Outputs:**  **Description Source**  View other Q&As by other members System | | |
| **Major Steps Performed:**  **1.**The user being able to view recent Q&As by other users so they can learn more about their fault or post their own if logged in.  **2.** The user needs to be logged in in order to post their own Q&A to the forum. | **Information for Steps:**  The user can locate the Q&A forum page by using the navbar. | | |
| **Pre-Conditions:**   1. N/A – Again the user does not need to be logged in to look at the forum. 2. To post a forum (Q&A) the user is required to be logged in, so the data saves to their user account. | **Post-Conditions:**   1. Sarah can view other members Q&As by using the forum to gain better knowledge about her fault. She can also post a Q&A once she is logged in to get some response. | | |

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| **Use Case Name:** Message Mechanic | | **ID: 8** | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like message her mechanic with any questions she is having. | | | |
| **Trigger:** The primary user would need to be logged in so she can message her mechanic to ensure it is safe and secure. | | | |
| **Major Inputs:**  **Description Source**  Select message mechanic from navbar System  Or select notification icon | **Major Outputs:**  **Description Source**  User can now send their System  Mechanic a message | | |
| **Major Steps Performed:**  **1.**The user selects the message mechanic option from the navbar so they can message their mechanic.  **2.**The user selects the notification icon from the top nav display to view any notifications or send a message | **Information for Steps:**  The user needs to be logged in so they can send their mechanic a message. | | |
| **Pre-Conditions:**   1. The user must be logged in to Dash Warning. | **Post-Conditions:**   1. Sarah can now message her mechanic with any issues she is having by either selecting the option from the nav bar or by using the notification icon. | | |

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| **Use Case Name:** Receive Notifications | | **ID: 9** | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to receive notifications when her mechanic messages her back. | | | |
| **Trigger:** The primary user would need to be logged in so she can receive notifications from her mechanic to ensure it is safe and secure. | | | |
| **Major Inputs:**  **Description Source**  Select notification icon on top nav System | **Major Outputs:**  **Description Source**  User can now receive notifications System  When a mechanic a message them | | |
| **Major Steps Performed:**  **1.**The user selects the notification icon from the top nav display to view any notifications. | **Information for Steps:**  The user needs to be logged in so they can receive a notification. | | |
| **Pre-Conditions:**   1. The user must be logged in to Dash Warning. | **Post-Conditions:**   1. Sarah can now receive notifications. | | |

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| **Use Case Name:** Logout | | **ID: 10** | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to log out of Dash Warning, so her account remains secure and safe. | | | |
| **Trigger:** The primary user would need to be logged in so she can log out of Dash Warning when she feels. | | | |
| **Major Inputs:**  **Description Source**  Select logout button from navbar System | **Major Outputs:**  **Description Source**  User is now logged out and System  Returned to the home page. | | |
| **Major Steps Performed:**  **1.**The user selects the logout button from the navbar so they can log out to keep their data save. | **Information for Steps:**  The user needs to be logged in so they can logout of Dash Warning by using the navbar. | | |
| **Pre-Conditions:**   1. The user must be logged in to Dash Warning. | **Post-Conditions:**   1. Sarah can now log out of Dash Warning once she is logged in by using the logout button from the navbar. | | |

# John’s View of the UI Use Cases (Secondary User)

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| **Use Case Name:** Register for Dash Warning | | **ID:** 1 | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah wouldlike to register an account with Dash Warning so that any scanned faults can be saved to her account encase she ever needs to show a mechanic. She also wants to be able to chat / read up about other faults using the forum on the app. | | | |
| **Trigger:** The primary user would need to register with Dash Warning in order to start using the system. | | | |
| **Major Inputs:**  **Description Source**  Full Name Sarah Cullen  Phone Number 086 554 3212  Current Address Dublin 6, Co. Dublin  Postal Code D65Y87G  Password ILoveCars67!  Email Address sarah.cullen@gmail.com | **Major Outputs:**  **Description Source**  Account created System  User System  Password System | | |
| **Major Steps Performed:**   1. Fill out the necessary information the system requires to make him a Dash Warning account. 2. Click the Enter Account button so she can then login to the system. | **Information for Steps:**  The primary user needs the relevant information listed on the create account page in order to create an account.  Username and password will have been generated from the primary user creating an account with Dash Warning and they will now be able to log in.  Returns the user to the log in page. | | |
| **Pre-Conditions:**   1. N/A | **Post-Conditions:**   1. Sarah has created an account with Dash Warning and is able to log into Dash Warning successfully. | | |

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| **Use Case Name:** Log into Dash Warning | | **ID:** 2 | **Importance Level:** High |
| **Primary Actor:** Sarah | | | |
| **Brief Description:** Sarah would like to log into Dash Warning in order to start tracking any saved scans of faults that have appeared on her car’s dashboard along with view other details like roadside assistance numbers, a forum and some of the most common faults for each colour (Red, Amber & Green). | | | |
| **Trigger:** The primary user logging into Dash Warning | | | |
| **Major Inputs:**  **Description Source**  Username sarah.cullen@gmail.com  Password ILoveCars67! | **Major Outputs:**  **Description Source**  Access to user account, scan System  Option and other pages within Dash Warning. | | |
| **Major Steps Performed:**   1. Fill out the necessary information needed to log into Dash Warning. | **Information for Steps:**  The primary user needs the relevant information they inputted into the register page to log into their Dash Warning account such as, username (email) and password. | | |
| **Pre-Conditions:**   1. N/A | **Post-Conditions:**   1. Sarah has logged into Dash Warning and can access the pages within the system. | | |

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| **Use Case Name:** View Average Electricity Usage | | **ID:** 1 | **Importance Level:** High |
| **Primary Actor:** James | | | |
| **Brief Description:** James would like to view Oliver’s electricity usage. | | | |
| **Trigger:** The secondary user James would like to view his father Oliver’s electricity usage. | | | |
| **Major Inputs:**  **Description Source**  Oliver must be tracking Oliver  his electricity usage | **Major Outputs:**  **Description Source**  Graph displaying Oliver’s System  electricity usage. | | |
| **Major Steps Performed:**  **1.**The secondary user being able to view the primary users electricity usage. | **Information for Steps:**  The primary user electricity usage. | | |
| **Pre-Conditions:**   1. The primary user must already be trying their electricity usage. | **Post-Conditions:**   1. James can access Oliver’s electricity usage. | | |

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| **Use Case Name:** View Average temperature | | **ID:** 2 | **Importance Level:** High |
| **Primary Actor:** James | | | |
| **Brief Description:** James would like to view Oliver’s average temperature. | | | |
| **Trigger:** The secondary user James would like to view his father Oliver’s electricity usage. | | | |
| **Major Inputs:**  **Description Source**  Oliver must be tracking Oliver  the temperature of his  home. | **Major Outputs:**  **Description Source**  Oliver’s average temperature System  In his home is displayed. | | |
| **Major Steps Performed:**  **1.**The secondary user being able to view the primary users average temperature. | **Information for Steps:**  The primary users average temperature. | | |
| **Pre-Conditions:**   1. The primary user must already be trying their temperature of their home. | **Post-Conditions:**   1. James can access Oliver’s average temperature of his home. | | |

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| **Use Case Name:** View the Notifications | | **ID:** 3 | **Importance Level:** High |
| **Primary Actor:** James | | | |
| **Brief Description:** James would like to receive notifications about Oliver’s budget and average usage. | | | |
| **Trigger:** The secondary user James would like to receive notifications about his father Oliver’s budget such as, has he went over his budget and by how much. James would also like to receive notifications in the temperature and electricity usage of his father such as Oliver as exceeded his average usage by 30 units. | | | |
| **Major Inputs:**  **Description Source**  Oliver must be tracking Oliver  the temperature and electricity usage of his  home, his must also have his target budget set. | **Major Outputs:**  **Description Source**  Oliver’s temperature, System  Electricity usage and target budget  in his home is displayed. | | |
| **Major Steps Performed:**  **1.**The secondary user being able to view the primary users tracking history. | **Information for Steps:**  The primary users average temperature, electricity usage and set budget. | | |
| **Pre-Conditions:**   1. The primary user must already be tracking their temperature and electricity usage of their home as well as setting a budget. | **Post-Conditions:**   1. James can be notified of any changes in Oliver’s tracking such as going over budget and exceeding set units . | | |

# Paper Prototype Test

As the Dash Warning application has three primary users an Elderly man, a student, and an Experienced Driver, I will test the Paper Prototype along with a secondary user of a Mechanic. I will now test the prototype with both a Student and Experienced Driver for the primary user along with a Mechanic for the secondary user.

## Dash Warning User Interface (UI Prototype) Tested by User (Driver) (Primary User)

When testing the UI prototype, it was important to get it tested by a primary user such as an experienced driver as their knowledge of cars and car faults tend to be higher. I asked both my parents if they could act out as “Sarah” as they are both users who fits the description of “Sarah” to see how they would interact with the system.

I set 3 various task sets for them to do, such as:

Task Set 1 (Login Option):

* Open app
* Login to Dash Warning App
* View Login page and press Enter
* View User Account page and press Scan now
* View Scan page and press Scan
* View Scanning page and press anywhere
* View Display page off fault scanned and either press Save or Call Roadside Assistance
* View User Account page if save was selected or View Service page if call roadside assistance was selected
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Most Common Faults and View Offline page – Can select from range of colour to view pages (Red, Amber, Green, & Electric)
* Select Nav Bar in top righthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Message Mechanic or Notification icon on top of user account
* View Message Mechanic page – hit post message
* View notification from mechanic – hit reply
* View reply page and press back to go back to user account page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

Task Set 2 (Create Account Option):

* Open app
* Create Account to Access Dash Warning App
* View Create Account page and press Enter
* View User Account page and press Scan now
* View Scan page and press Scan
* View Scanning page and press anywhere
* View Display page off fault scanned and either press Save or Call Roadside Assistance
* View User Account page if save was selected or View Service page if call roadside assistance was selected
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Most Common Faults and View Offline page – Can select from range of colour to view pages (Red, Amber, Green, & Electric)
* Select Nav Bar in top righthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Message Mechanic or Notification icon on top of user account
* View Message Mechanic page – hit post message
* View notification from mechanic – hit reply
* View reply page and press back to go back to user account page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

Task Set 3 (Non-User Option):

* Open app
* Select Not Now to Access Dash Warning App – Data not Saved
* View Scan page and press Scan
* View Scanning page and press anywhere
* View Display page off fault scanned and press Call Roadside Assistance (Save not available)
* View User Account page if save was selected or View Service page if call roadside assistance was selected
* Select Nav Bar in top righthand corner and see pop out selection
* Select Most Common Faults and View Offline page – Can select from range of colour to view pages (Red, Amber, Green, & Electric)
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

I recorded each of the 3 task interactions both users had with the paper prototype so I could watch them back. I set 3 tasks as there is 3 options on how to use the app.

From watching the videos back, I can see the users were able to navigate through the pages with ease. They paused to find the pages and were exploring the app before then they were able to move on. The user was able to identify each page/screen they needed to move to and were able to then identify where they would click to edit their target.

From conducting this paper prototype test(s), I was able to see how both users reacted with the paper prototype.

## Dash Warning User Interface (UI Prototype) Tested by User (Student) (Primary User)

When testing the UI prototype, it was important to get it tested by a second primary user such as a student whose knowledge of cars and car faults might not be the best as they are young. I asked fellow students if they could act out as “Tara” as they are users who fits the description of “Tara” to see how they would interact with the system.

I set 3 various task sets for them to do, such as:

Task Set 1 (Login Option):

* Open app
* Login to Dash Warning App
* View Login page and press Enter
* View User Account page and press Scan now
* View Scan page and press Scan
* View Scanning page and press anywhere
* View Display page off fault scanned and either press Save or Call Roadside Assistance
* View User Account page if save was selected or View Service page if call roadside assistance was selected
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Most Common Faults and View Offline page – Can select from range of colour to view pages (Red, Amber, Green, & Electric)
* Select Nav Bar in top righthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Message Mechanic or Notification icon on top of user account
* View Message Mechanic page – hit post message
* View notification from mechanic – hit reply
* View reply page and press back to go back to user account page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

Task Set 2 (Create Account Option):

* Open app
* Create Account to Access Dash Warning App
* View Create Account page and press Enter
* View User Account page and press Scan now
* View Scan page and press Scan
* View Scanning page and press anywhere
* View Display page off fault scanned and either press Save or Call Roadside Assistance
* View User Account page if save was selected or View Service page if call roadside assistance was selected
* Select Nav Bar in top righthand corner and see pop out selection
* Select Most Common Faults and View Offline page – Can select from range of colour to view pages (Red, Amber, Green, & Electric)
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Message Mechanic or Notification icon on top of user account
* View Message Mechanic page – hit post message
* View notification from mechanic – hit reply
* View reply page and press back to go back to user account page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

Task Set 3 (Non-User Option):

* Open app
* Select Not Now to Access Dash Warning App – Data not Saved
* View Scan page and press Scan
* View Scanning page and press anywhere
* View Display page off fault scanned and press Call Roadside Assistance (Save not available)
* View User Account page if save was selected or View Service page if call roadside assistance was selected
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Most Common Faults and View Offline page – Can select from range of colour to view pages (Red, Amber, Green, & Electric)
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

I recorded each of the 3 task interactions both users had with the paper prototype so I could watch them back. I set 3 tasks as there is 3 options on how to use the app.

From watching the videos back, I can see the users were able to navigate through the pages with ease. They paused to find the pages and were exploring the app before then they were able to move on. The user was able to identify each page/screen they needed to move to and were able to then identify where they would click to edit their target.

From conducting this paper prototype test(s), I was able to see how both users reacted with the paper prototype.

## Dash Warning User Interface (UI Prototype) Tested by Mechanic (Secondary User)

When testing the UI prototype, it was important to get it tested by a secondary user such as an experienced mechanic as their knowledge of cars and car faults tend to be excellent. I asked my boyfriend Calum who is a mechanic if he could test the paper prototype as he fits the description of “John” so I could see how he would interact with the system.

As his use of the application will be different, I set different tasks for him to complete. As he is a mechanic his knowledge of cars and fault symbols should be excellent. I will still ask him to perform task 1 and task 2 (changed slightly) that the primary users needed to perform. This is because if he wishes to view client’s data to see what has already happened with the car the mechanic will require an account to view client data that will be shared with him.

Task Set 1 (Login Option):

* Open app
* Login to Dash Warning App
* View Login page and press Enter
* View User Account page & see saved history – Linked to client data
* Select see more under saved history
* View Display page off fault saved by client and see the description
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

Task Set 2 (Create Account Option):

* Open app
* Create Account to Access Dash Warning App
* View Create Account page and press Enter
* View User Account page & see saved history – Linked to client data
* Select see more under saved history
* View Display page off fault saved by client and see the description
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Q&A forum and view Forum page
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

Task Set 3 (User Shows Mechanic Saved History):

* User opens app
* User views Login page and press Enter
* User views User Account page & presses Scan
* View Scan page and press Scan now in front of mechanic
* View Scanning page and press anywhere
* View Display page off fault scanned and show mechanic the result & select save option
* View User Account page if save was selected & see saved history
* Select Nav Bar in top lefthand corner and see pop out selection
* Select Log Out button to bring back to home page

I recorded the interactions the mechanic had with all 3 tasks so I could watch them back. I set 3 tasks as there is 3 options on how to use the app in this case. The third option here is the user showing the mechanic the fault or saved fault by using the app.

From watching the videos back, I can see the users were able to navigate through the pages with ease. They paused to find the pages and were exploring the app before then they were able to move on. The user was able to identify each page/screen they needed to move to and were able to then identify where they would click to edit their target.

From conducting this paper prototype test(s), I was able to see how both users reacted with the paper prototype.

## Dash Warning App Paper Prototype Testing (UI) – Paper Prototype (Adobe XD)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test Title** | **Details/Actions/Inputs** | **Expected Outcome** | **Actual Outcome** | **Result** | **Comment** |
| 1 | Open App (Home Page - Welcome) | The user opens the Dash Warning App on their phone. | Land on Home page of app. | User lands on the home page (welcome page) of app. | PASS | Home page loads Successfully. |
| 2 | Login Button | Enters valid login details. | Moves to the User Account Page. | Moves to the User Account Page. | PASS | User account page loads Successfully. |
| 3 | Login Button | Enters invalid login details. | Stays on the login page. | Stays on the login page. | PASS | Error message stating invalid login made – try again. |
| 4 | Create Account Button | Enter invalid details so account can’t be created. | Stay on create account page. | Stay on create account page. | PASS | Error message stating invalid create account details made – try again. |
| 5 | Create Account Button | Enter valid details to create an account. | Moves to login page. | Moves to login page. | PASS | Login page loads Successfully. |
| 6 | View Account – Scan Now Button | Land on user account after logging in. Select Scan Now Button. | Moves to scan page. | Moves to scan page. | PASS | Scan page loads Successfully. |
| 7 | Scan Button (Scan Page) | Select scan button to scan the dash warning symbol. | Scans image, moves to scanning screen and displays out details. | Moves to the scanning page. | PASS | Scanning page loads Successfully. |
| 8 | Scanning page | Scanning the dashboard symbol previously scanned and displays out the details. | Moves to the display page. | Moves to the display page. | PASS | Display page loads Successfully. |
| 9 | View Display Page - Save | View the symbol information displayed out and select save option. | Saves and brings you to user account page. | Saved data and moves you to user account page. | PASS | User account page loads Successfully. |
| 10 | View Display Page – Call Roadside Assistance | View the symbol information displayed out and select call roadside assistance option. | Brings you to the call roadside assistance page. | Moves you to the roadside assistance page. | PASS | Roadside assistant page loads Successfully. |
| 11 | Select Navbar | Select navbar option on lefthand screen to view more options. | Shows user the navbar options. | Pops out the navbar element. | PASS | Navbar loads Successfully. |
| 12 | Select Scan Dashboard Option | Select the scan dashboard option from navbar. | Brings you to the scan page. | Moves to the scan page. | PASS | Scan page loads Successfully. |
| 13 | Select Roadside Assistance Option | Select the roadside assistance option from navbar. | Brings you to the roadside assistance page. | Moves to the roadside assistance page. | PASS | Roadside assistance page loads Successfully. |
| 14 | Select Most Common Option | Select the most common fault option from navbar. | Brings you to the most common fault page. | Moves to the most common fault page. | PASS | Most common fault page loads Successfully. |
| 15 | Select Red Faults Option | Select the red faults option from navbar. | Bring you to the red faults page. | Moves to the red faults page. | PASS | Red faults page loads Successfully. |
| 16 | Select Amber Faults Option | Select the amber faults option from navbar. | Bring you to the amber faults page. | Moves to the amber faults page. | PASS | Amber faults page loads Successfully. |
| 17 | Select Green & Blue Faults Option | Select the green & blue faults option from navbar. | Bring you to the green & blue faults page. | Moves to the green & blue faults page. | PASS | Green & blue faults page loads Successfully. |
| 18 | Select Electric & Hybrid Faults Option | Select the electric & hybrid faults option from navbar. | Bring you to the electric & hybrid faults page. | Moves to the electric & hybrid faults page. | PASS | Electric & Hybrid page loads Successfully. |
| 19 | Select Q&A Forum Option | Select the Q&A Forum option from navbar. | Brings you to the forum page. | Moves to the forum page. | PASS | Forum page loads Successfully. |
| 20 | Select User Account Option | Select the user account option from navbar. | Brings you to the user account page. | Moves to the user account page. | PASS | User account page loads Successfully. |
| 21 | Select Logout Button | Select the logout button from navbar. | Brings you to the home page (Welcome page). | Moves to the home page (welcome page) | PASS | Home (welcome) page loads Successfully. |
| 22 | Select Red Faults from common faults page | Select the red faults from the most common faults page. | Brings you to the red faults page. | Moves to the red faults page. | PASS | Red faults page loads Successfully. |
| 23 | Select Amber Faults from common faults page | Select the amber faults from the most common faults page. | Brings you to the amber faults page. | Moves to the amber faults page. | PASS | Amber faults page loads Successfully. |
| 24 | Select Green & Blue from common faults page | Select the green & blue faults from the most common faults page. | Brings you to the green & blue faults page. | Moves to the green & blue faults page. | PASS | Green & blue faults page loads Successfully. |
| 25 | Select Electric & Hybrid faults from common faults page | Select the electric & Hybrid faults from the most common faults page. | Brings you to the electric & hybrid faults page. | Moves to the electric & hybrid faults page. | PASS | Electric & Hybrid page loads Successfully. |
| 26 | Selection Notification Icon | Select the notification icon at the top of user account. | Brings you to the message mechanic page. | Moves you to the message mechanic page. | PASS | Message Mechanic page loads Successfully. |
| 27 | Select Post Message Button | Select the post message button. | Brings you to the post message page. | Moves you to the post message page. | PASS | Post Message page loads Successfully. |
| 28 | Select Reply Button | Select the reply message button. | Brings you to the reply page. | Moves you to the reply page. | PASS | Reply page loads Successfully. |
| 29 | Select Back Button | Select the back button. | Brings you to the user account page. | Moves you to the user account page. | PASS | User Account page loads Successfully. |

## Dash Warning App Testing (UI – Android / iPhone) – Later Stages - Code Development (TBD)

When testing the app, it is important to test it on both Android and iPhone as it is a multiplatform app. The same test will run as seen in the paper prototype as the basics here for each mobile device.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test Title** | **Details/Actions/Inputs** | **Expected Outcome** | **Actual Outcome** | **Result** | **Comment** |
| 1 | Open App (Home Page - Welcome) | The user opens the Dash Warning App on their phone. | Land on Home page of app. | User lands on the home page (welcome page) of app. | PASS | Home page loads Successfully. |
| 2 | Login Button | Enters valid login details. | Moves to the User Account Page. | Moves to the User Account Page. | PASS | User account page loads Successfully. |
| 3 | Login Button | Enters invalid login details. | Stays on the login page. | Stays on the login page. | PASS | Error message stating invalid login made – try again. |
| 4 | Create Account Button | Enter invalid details so account can’t be created. | Stay on create account page. | Stay on create account page. | PASS | Error message stating invalid create account details made – try again. |
| 5 | Create Account Button | Enter valid details to create an account. | Moves to login page. | Moves to login page. | PASS | Login page loads Successfully. |
| 6 | View Account – Scan Now Button | Land on user account after logging in. Select Scan Now Button. | Moves to scan page. | Moves to scan page. | PASS | Scan page loads Successfully. |
| 7 | Scan Button (Scan Page) | Select scan button to scan the dash warning symbol. | Scans image, moves to scanning screen and displays out details. | Moves to the scanning page. | PASS | Scanning page loads Successfully. |
| 8 | Scanning page | Scanning the dashboard symbol previously scanned and displays out the details. | Moves to the display page. | Moves to the display page. | PASS | Display page loads Successfully. |
| 9 | View Display Page - Save | View the symbol information displayed out and select save option. | Saves and brings you to user account page. | Saved data and moves you to user account page. | PASS | User account page loads Successfully. |
| 10 | View Display Page – Call Roadside Assistance | View the symbol information displayed out and select call roadside assistance option. | Brings you to the call roadside assistance page. | Moves you to the roadside assistance page. | PASS | Roadside assistant page loads Successfully. |
| 11 | Select Navbar | Select navbar option on lefthand screen to view more options. | Shows user the navbar options. | Pops out the navbar element. | PASS | Navbar loads Successfully. |
| 12 | Select Scan Dashboard Option | Select the scan dashboard option from navbar. | Brings you to the scan page. | Moves to the scan page. | PASS | Scan page loads Successfully. |
| 13 | Select Roadside Assistance Option | Select the roadside assistance option from navbar. | Brings you to the roadside assistance page. | Moves to the roadside assistance page. | PASS | Roadside assistance page loads Successfully. |
| 14 | Select Most Common Option | Select the most common fault option from navbar. | Brings you to the most common fault page. | Moves to the most common fault page. | PASS | Most common fault page loads Successfully. |
| 15 | Select Red Faults Option | Select the red faults option from navbar. | Bring you to the red faults page. | Moves to the red faults page. | PASS | Red faults page loads Successfully. |
| 16 | Select Amber Faults Option | Select the amber faults option from navbar. | Bring you to the amber faults page. | Moves to the amber faults page. | PASS | Amber faults page loads Successfully. |
| 17 | Select Green & Blue Faults Option | Select the green & blue faults option from navbar. | Bring you to the green & blue faults page. | Moves to the green & blue faults page. | PASS | Green & blue faults page loads Successfully. |
| 18 | Select Electric & Hybrid Faults Option | Select the electric & hybrid faults option from navbar. | Bring you to the electric & hybrid faults page. | Moves to the electric & hybrid faults page. | PASS | Electric & Hybrid page loads Successfully. |
| 19 | Select Q&A Forum Option | Select the Q&A Forum option from navbar. | Brings you to the forum page. | Moves to the forum page. | PASS | Forum page loads Successfully. |
| 20 | Select User Account Option | Select the user account option from navbar. | Brings you to the user account page. | Moves to the user account page. | PASS | User account page loads Successfully. |
| 21 | Select Logout Button | Select the logout button from navbar. | Brings you to the home page (Welcome page). | Moves to the home page (welcome page) | PASS | Home (welcome) page loads Successfully. |
| 22 | Select Red Faults from common faults page | Select the red faults from the most common faults page. | Brings you to the red faults page. | Moves to the red faults page. | PASS | Red faults page loads Successfully. |
| 23 | Select Amber Faults from common faults page | Select the amber faults from the most common faults page. | Brings you to the amber faults page. | Moves to the amber faults page. | PASS | Amber faults page loads Successfully. |
| 24 | Select Green & Blue from common faults page | Select the green & blue faults from the most common faults page. | Brings you to the green & blue faults page. | Moves to the green & blue faults page. | PASS | Green & blue faults page loads Successfully. |
| 25 | Select Electric & Hybrid faults from common faults page | Select the electric & Hybrid faults from the most common faults page. | Brings you to the electric & hybrid faults page. | Moves to the electric & hybrid faults page. | PASS | Electric & Hybrid page loads Successfully. |
| 26 | Selection Notification Icon | Select the notification icon at the top of user account. | Brings you to the message mechanic page. | Moves you to the message mechanic page. | PASS | Message Mechanic page loads Successfully. |
| 27 | Select Post Message Button | Select the post message button. | Brings you to the post message page. | Moves you to the post message page. | PASS | Post Message page loads Successfully. |
| 28 | Select Reply Button | Select the reply message button. | Brings you to the reply page. | Moves you to the reply page. | PASS | Reply page loads Successfully. |
| 29 | Select Back Button | Select the back button. | Brings you to the user account page. | Moves you to the user account page. | PASS | User Account page loads Successfully. |

Once the other elements like the Image Scanner, GPS Location, Facial Recognition and Backend / Server are linked with the Frontend Development. It will then be important to test to ensure all features are working as they get integrated together as they are the key features to our application Dash Warning. It will be important to test and ensure these features are working on both an Android and iPhone device within the frontend code, but also need to be tested with an actual car fault in a remote area so that we can truly test the GPS is working correctly. We will also need to test the Facial Recognition with a registered user to the app to ensure it is working so they can login in that way too if they wish. We will also need to ensure that the database and server is working correctly with the frontend so that all data by a user is saved and processed correctly while being secure. It will be important that we also test the image scanner on multiple dashboard warning symbols to ensure it is working correctly and linking correctly with the database storing possible symbols and their descriptions.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test Title** | **Details/Actions/Inputs** | **Expected Outcome** | **Actual Outcome** | **Result** | **Comment** |
| 1 | Image Scanner |  | Should scan the dashboard symbol, go back to database and filter then display the correct information related. |  |  |  |
| 2 | GPS Location |  | Should use the GPS Location of the users phone to recommend nearby repair shops. |  |  |  |
| 3 | Facial Recognition |  | Should scan the users face so they can log into the app this way once they already have an account. |  |  |  |
| 4 | Backend/Server – Login / Create Account |  | When a user either creates and account or logs in their data should be stored within the database/server so it then returns either their account or a non-user message and asking them to create an account. |  |  |  |
| 5 | Backend/Server – User Account Details |  | When a user has created an account or logs in, they should be able to see their account details – saved scans, forum history and their account details. |  |  |  |
| 6 | Backend/Server – Saved Scans |  | The user account should be able to see saved scans made which has been saved to the database/server and have been encrypted. |  |  |  |

# User Persona’s Test

## User Persona Stories (UX) Tested by User (Driver) (Primary User)

When testing the User Story (UX) for a primary user such as an experienced driver, it was important I asked someone of similar age and who fitted the description of “Sarah” to see if the goals and interface requirements would match up.

I asked my parents again to look at “Sarah’s” User Persona Story and give any feedback which could improve it. The feedback consisted of ---

From conducting this user persona test(s), I was able to see how both users agreed/disagreed with the user persona.

## User Persona Stories (UX) Tested by User (Student) (Primary User)

When testing the User Story (UX) for a primary user such as a student, it was important I asked someone of similar age and who fitted the description of “Tara” to see if the goals and interface requirements would match up.

I asked one of my college friends again to look at “Tara’s” User Persona Story and give any feedback which could improve it. The feedback consisted of ---

From conducting this user persona test(s), I was able to see how they agreed/disagreed with the user persona.

## User Persona Stories (UX) Tested by Mechanic (Secondary User)

When testing the User Story (UX) for a secondary user such as an experienced mechanic, it was important I asked someone who fitted the description of “John” to see if the goals and interface requirements would match up.

I asked my boyfriend Calum again to look at “John’s” User Persona Story and give any feedback which could improve it. The feedback consisted of ---

From conducting this user persona test(s), I was able to see how he agreed/disagreed with the user persona.