Wheelie Smart Application Testing

Application Testing Document

Testing Strategy for the app:
General:
The application needed to be tested for various issues that may arise, such as features that may not work as intended or memory leaks. The testing strategy used was designed to allow for any faults similar to these to be found and recommendations to be made for improving the ease of use and utility of the artefact.

This document will be laid out in a format which allows for referencing to be of ease due to it being split into different sections and sub sections for each version of the app that was produced. Each section will be dedicated to a singular version of the application and will go over what has changed from the previous version (e.g. what has been altered, added or removed).
 A Progress table will be made for each section which can be used as a quick reference for what has been included in each version and what still needs to be added for it to reach the level of completion that is required.

Version 1

Notes about version 1:
This is the first version of the application that is being used for testing, as it is in a state that allows for the user to interact with the included features of the application so far.

Current Features

Home page:

- The version of the application
- The title of the application.
- An "Add new Bin" button.
- A "Manage Bins" button.
- A "Settings" button.

Add new bin page:

- The version of the application
- The title of the application.

- The logo that is being used to represent the application.
- A "Add new Bin" Title
- A text box which has the text "Bin name" inside of it, which allows for the user to understand that they need to put a bin name inside of the text box.
- A text box which has the text "Bin Code" inside of it, which allows for the user to understand that they need to put a bin code inside of the text box.

Confirmation page:

- The version of the application
- The title of the application.
- A line of text stating that the named bin has been connected
- Another line of text asking if the user would like to set up a schedule for the bin
- An "Update Schedule" button
- A "Done for now" button

Schedule page:

- The version of the application
- A time function
- The title of the application.
- 7 buttons (Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday) that are in the listed order from top to bottom
- An "Update Schedule" button

When the user clicks on one of the buttons from this page, an android friendly pop up will appear, which will allow the user to set a time with an interactive wheel.

Version 1 Progress table:

Planned Features	Have they been implemented	Are they up to an acceptable standard for a finished app?	Reasons why they are/aren't up to standard
Home Page	yes	no	The base layout for the home page is there, but the interactivity with every planned feature is not there as well as no logo or user friendly GUI present.

Add new bin page	yes	no	The layout for this page is finished and it also has the output variables needed to transfer any required information for the rest of the app to function. But that doesn't mean that it is not flawed, the main one being that a user can leave the spaces as they are and still continue to the next step of the app.
Confirmation that been has been added page	yes	no	At the moment this is just a constant redirect page for the add new bin page. We plan to change this so that when the information entered passes the requirements for the fields from the add new bins page they will be directed to a failure page instead.
Failure page just in case something goes wrong when a new bin is trying to be added	no	no	Unconfirmed weather or not we will have a designated page for failures or we will have an in app popup, but neither of these have been implemented in this build.
Manage bin/update schedule page	yes	no	As of this build, only 1 time variable is present. And this can be changed by clicking on any day button and adjusting the time through an android friendly time function.
Settings Page	no	no	As of this build, the button that should direct to a settings page directs to the add new bin page.
Send bins out page	no	no	A way to be able to test the bins functionality by sending it out immediately wasa planned feature, but has not been implemented in this build.

Notes about version:

Home page:
- The logo for the app
- User friendly GUI

Add new bin page:
- User friendly GUI (larger buttons, larger & clearer text)
-

Confirmation page:
- User friendly GUI(larger buttons, larger & clearer text)

Schedule page:
- User friendly GUI (larger buttons)

Version 1.2

Notes about version 1.2:
A graphical overhaul has been done to the app to allow it to be more user friendly whilst using it. The size of the buttons has been enlarged as well as a logo being introduced to the home page of the app.

Current Features:

Home page:
- The version of the application
- The title of the application.
- The logo that is being used to represent the application.
- An "Add new Bin" button.
- A "Manage Bins" button.
- A "Settings" button.

Add new bin page:

- The version of the application
- The title of the application.
- The logo that is being used to represent the application.
- A "Add new Bin" Title
- A text box which has the text "Bin name" inside of it, which allows for the user to understand that they need to put a bin name inside of the text box.
- A text box which has the text "Bin Code" inside of it, which allows for the user to understand that they need to put a bin code inside of the text box.

Confirmation page:

- The version of the application
- The title of the application.
- A line of text stating that the named bin has been connected
- Another line of text asking if the user would like to set up a schedule for the bin
- An "Update Schedule" button
- A "Done for now" button

Schedule page:

- The version of the application
- A time function
- The title of the application.
- 7 buttons (Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday) that are in the listed order from top to bottom
- An "Update Schedule" button

Version 1.2 Progress table:

Planned Features	Have they been implemented	Are they up to an acceptable standard for a finished app?	Reasons why they are/aren't up to standard
Home Page	yes	yes	Quite a simple page that needs to act as a directory for the rest of the app. Performs that purpose.
Add new bin page	yes	yes	The layout for this page is finished

			and it also has the output variables needed to transfer any required information for the rest of the app to function.
Confirmation that been has been added page	yes	no	At the moment this is just a constant redirect page for the add new bin page. We plan to change this so that when the information entered passes the requirements for the fields from the add new bins page they will be directed to a failure page instead.
Failure page just in case something goes wrong when a new bin is trying to be added	no	no	Unconfirmed weather or not we will have a designated page for failures or we will have an in app popup, but neither of these have been implemented in this build.
Manage bin/update schedule page	yes	no	As of this build, only 1 time variable is present. And this can be changed by clicking on any day button and adjusting the time through an android friendly time function.
Settings Page	yes	no	As of this build, the button for the stettings page directs to the add new bin page.
Send bins out page	no	no	No changes from version 1.

Notes about version:

The app is a lot more graphically aestetic, as the logo and the buttons that the user interacts with are a lot nicer and easier to read. Nothing has changed about the function of the app though from version 1.

Version 1.8

Notes about version 1.8:
The App now saves the bins and bin codes that you input into the app which is a large step towards having this artefact be a product that is up to an acceptable standard for the project.

Current Features:

Home page:

- The version of the application
- The title of the application.
- The logo that is being used to represent the application.
- An "Add new Bin" button.
- A "Manage Bins" button.
- A "Settings" button.

Add new bin page:

- The version of the application
- The title of the application.
- The logo that is being used to represent the application.
- A "Add new Bin" Title
- A text box which has the text "Bin name" inside of it, which allows for the user to understand that they need to put a bin name inside of the text box.
- A text box which has the text "Bin Code" inside of it, which allows for the user to understand that they need to put a bin code inside of the text box.

Confirmation page:

- The version of the application
- The title of the application.
- A line of text stating that the named bin has been connected
- Another line of text asking if the user would like to set up a schedule for the bin
- An "Update Schedule" button
- A "Done for now" button

Schedule page:

- The version of the application
- A time function
- The title of the application.
- 7 buttons (Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday) that are in the listed order from top to bottom
- An "Update Schedule" button

Manage Bins page:

- The version of the application
- A list of the bins that you have created with the add new bin page.
- The title of the app
- A "Bin schedule updated" text box
- A home button
- A Save changes button

Version 1.8 Progress table:

Planned Features	Have they been implemented	Are they up to an acceptable standard for a finished app?	Reasons why they are/aren't up to standard
Home Page	yes	yes	Quite a simple page that needs to act as a directory for the rest of the app. Performs that purpose.
Add new bin page	yes	yes	The layout for this page is finished and it also has the output variables needed to transfer any required information for the rest of the app to function.
Confirmation that been has been added page	yes	no	At the moment this is just a constant redirect page for the add new bin page. We plan to change this so that when the information entered passes the requirements for the fields from the add new bins page they will be directed to a failure page instead.
Failure page just in case something goes wrong when a new bin is trying to be added	no	no	Unconfirmed weather or not we will have a designated page for failures or we will have an in app popup, but neither of these have been implemented in this build.
Manage bin/update schedule page	yes	no	The manage bin page now exists, but you cannot remove any bins that you have created. This is an issue because if you make a mistake whilst inputting the bin name or code then you are forced

			to make a second bin instead of removing the one with an error and remaking it.
Settings Page	yes	no	As of this build, the button for the stettings page directs to the add new bin page.
Send bins out page	no	no	No changes from version 1.

Notes about version:

Version 1.9

Notes about version 1.9:
A lot of features were altered in this version. The time feature was removed as we have decided to hard code the time in the robot to 07:00 to help simplify the artefact for a showing.

Current Features:

Home page:

- The version of the application
- The title of the application.
- The logo that is being used to represent the application.
- An "Add new Bin" button.
- A "Manage Bins" button.
- A "Settings" button.

Add new bin page:

- The version of the application
- The title of the application.
- The logo that is being used to represent the application.
- A "Add new Bin" Title
- A text box which has the text "Bin name" inside of it, which allows for the user to understand that they need to put a bin name inside of the text box.

- A text box which has the text "Bin Code" inside of it, which allows for the user to understand that they need to put a bin code inside of the text box.

Confirmation page:
- The version of the application
- The title of the application.
- A line of text stating that the named bin has been connected
- Another line of text asking if the user would like to set up a schedule for the bin
- An "Update Schedule" button
- A "Done for now" button

Schedule page:
- The version of the application

- ~~A time function~~ removed. (see **Version 1.9**)
- The title of the application.
- 7 buttons (Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday) that are in the listed order from top to bottom
- An "Update Schedule" button

Manage Bins page:
- The title of the app
- A list of the bins added
- A home button
- A Save changes button
- A text box for entering bin names to remove them.
- A remove bin button

Version 1.9 Progress table:

Planned Features	Have they been implemented	Are they up to an acceptable standard for a finished app?	Reasons why they are/aren't up to standard
Home Page	yes	yes	Quite a simple page that needs to act as a directory for the rest of

			the app. Performs that purpose.
Add new bin page	yes	yes	The layout for this page is finished and it also has the output variables needed to transfer any required information for the rest of the app to function.
Confirmation that been has been added page	yes	no	At the moment this is just a constant redirect page for the add new bin page. We plan to change this so that when the information entered passes the requirements for the fields from the add new bins page they will be directed to a failure page instead.
Failure page just in case something goes wrong when a new bin is trying to be added	no	no	Unconfirmed weather or not we will have a designated page for failures or we will have an in app popup, but neither of these have been implemented in this build.
Manage bin/update schedule page	yes	no	The user can see the bins that they have made and also remove them. This feature is a bit buggy as if the user enters a code that doesnt exist then the app with crash,
Settings Page	yes	no	As of this build, the button for the stettings page directs to the add new bin page.
Manage/Send bins out page	no	no	You can remove bins, but there is no confirmation for removing the bins, as well as having to input the bin code not the name, although the text box says to.

Notes about version:

Confirmation for bin removal on manage bins page planned to be added in next version