

J68V 47 Software Development

Assessment Project Brief

This project brief should be used in conjunction with the **J68V47 Software Development Assessment document**. This document details all the good practice and coding constructs that must be demonstrated while implementing this project.

Summary

Design and develop an application to help users develop and maintain eco-friendly habits.

This application should have a simple, user-friendly interface with a checklist of weekly eco-friendly habits where the user can input how many times a week they carry out an eco-habit.

The app will calculate the benefits to the user alongside generating a message to help them increase their good habits.

General Requirements




- The User should be able to enter the number of times a week that they have carried out a good eco habit.
 - *For example:* used a reusable bottle instead of buying a single use plastic bottle, used a reusable coffee cup instead of a single use coffee cup.
- There should be a minimum of 5 eco habits displayed
- Text displaying the habit alongside a matching image should be displayed
- The user should be able to input an integer from 0 upwards for each habit
- The user should be able to click a button once they have finished inputting their data.
- The user should receive a personalised message showing them how well they have done in terms of eco habits and be given a personalised hint on the next steps to take.
- The personalised message should be written to a text file. This could be used for printing by the user.

As part of HN Next Gen Learning for Sustainability, you are required to research 2 additional eco-habits, find out the impact on the environment and benefits to you as an individual. The impact on the environment and personal benefits only need to be approximate as most would require a lot of accurate data.

Keep the calculations simple – there is no need to try and calculate complex CO2 emissions.

Example of an acceptable interface showing 3 eco-habits:

Weekly Acts of Eco-ness

How many times a week		
Reusable Water Bottle		<input type="text" value="0"/>
Reusable Coffee Cup		<input type="text" value="0"/>
Reusable Shopping Bag		<input type="text" value="0"/>

[Tell me how I'm doing](#)

So far this week you have been:

Awesome
Great
Average
Not Eco

Keep going, in a year you will have:

- Saved 134 plastic bottles and approximately £85
- Not used 80 plastic carrier bags and saved £8.00
- Not wasted 104 coffee cups and saved £30.00

Hint:

To keep being eco friendly and saving yourself some money:

Personalised message based on user input

Additional Information:

Impact example

- Using a reusable water bottle 4 days a week has saved 208 plastic bottles being bought and used in a year etc.

Eco tip of the week: *(based on a good habit of 0 days)*

- Try using a reusable water bottle to reduce plastic waste.

The following data can be used for calculations:

- Bottle of water – average price £1.00
- Reusable coffer cup saves 25 pence and 5p is charged extra for a single-use cup
- Single Use carrier bag costs 10p

Additional example habits

- Switch off lights
- Switching off computers
- 1-minute shorter shower than usual
- Use public transport
- Recycle glass, paper, plastic or metal
- Meat/dairy free day
- Machine wash at 30 instead of 40

Submissions to be uploaded to Moodle:

1. Requirements Specification

- Overview of the project
- List of Functional and Non-Functional Requirements
- User Stories

2. Design Specification

- Pseudocode for the program algorithm
- Wireframes for the app showing how the interface components interact

3. Completed Code Solution that includes a JAR file – zipped folder

4. Completed Test Log that includes:

- Test Plan
- Test Cases
- Test Data (Normal, Boundary and Exceptional)

5. Deployment Instructions

- Platform requirements
- Instructions on installation