Evaluation/Benchmark test

In the evaluation and benchmark testing process, the team used the “in-person” method of testing where three tasks were created to test all aspects of the system. Several users were chosen to try one of the three task scenarios proposed. For this evaluation there were … users. The participants were chosen from relatives and friends. Every participant was presented with a informed consent form before starting the benchmark testing.

**Task 1:**

Obtain 30eur of High Grade petrol paid by card.

Problem 1:

The users proceeded well however they found difficulty in the page labelled fixedDynamicPayment.html. It was found that the button names ‘fixed payment’ and ‘dynamic payment’ were a bit too vague and did not convey the meaning of the buttons properly. This was a recurring theme as seen in the following tasks.

Problem 2:

A few users also pointed out that they did not have the option to undo their last input when inputting the amount, they want to when paying by card.

**Task 2:**

Obtain 15eur of diesel paid in cash

(Same as Problem 1):

As mentioned in Task 1 all users found difficulty with the buttons in the page fixedDynamicPayment.html.

Problem 3:

Some users also were a bit unsure what the pictures meant when selecting whether to pay by cash or card.

**Task 3:**

Obtain 10 litres of Low-Grade petrol that charges your card automatically.

(same as Problem 1):

As mentioned in Task 1 all users found difficulty with the buttons in the page fixedDynamicPayment.html.

After obtaining all this valuable feedback some changes were made to the system tackling every problem:

**Solution:**

Problem 1:

After asking the users what the button names should be changed to the button ‘fixed payment’ was changed to ‘charge by amount’ and ‘dynamic payment’ was changed to ‘charge by litre’. This made the point and function of clicking one button over another much clearer.

Problem 2:

To solve this problem first a new html file called card.html had to be created. This is because before when a user chose cash or card, to select the amount they wish to input into the system the same page was needed. However, now a backspace is needed when paying by card. The same function is not available when paying by cash as it is not possible to return the cash put in by the user. Once this page was created a function was created so that when a user is paying by card and presses the ‘backspace’ button the last value entered is removed from the total. The user may click backspace until the total reaches zero.

Problem 3:

The cash and card buttons in paymentInterface.html were labelled.

After the tasks were completed successfully with guidance from the moderators, the participants were asked to answer five questions about the interface they were using. The questions were paired with a scale of 1-5, with 1 being completely dissatisfied/disagree and 5 completely satisfied/agree.

Question 1: How satisfied are you with the overall quality of the service of the fuel pump interface?

Question 2: How satisfied are you with the design of the interface?

Question 3: How satisfied are you with the readability of the interface?

Question 4: How satisfied are you with the ease of use of the interface are you?

Question 5: How likely are you to prefer this interface over some of the already existing ones?

Below is the data collected from the participants:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Question/scale | 1 | 2 | 3 | 4 | 5 |
| 1 | 0 | 0 | 0 | 1 | 2 |
| 2 | 0 | 0 | 0 | 2 | 1 |
| 3 | 0 | 0 | 1 | 2 | 0 |
| 4 | 0 | 0 | 1 | 1 | 1 |
| 5 | 0 | 0 | 0 | 3 | 0 |

Text

Description automatically generated**Informed Consent form**