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COMP4604

Formal Element 2

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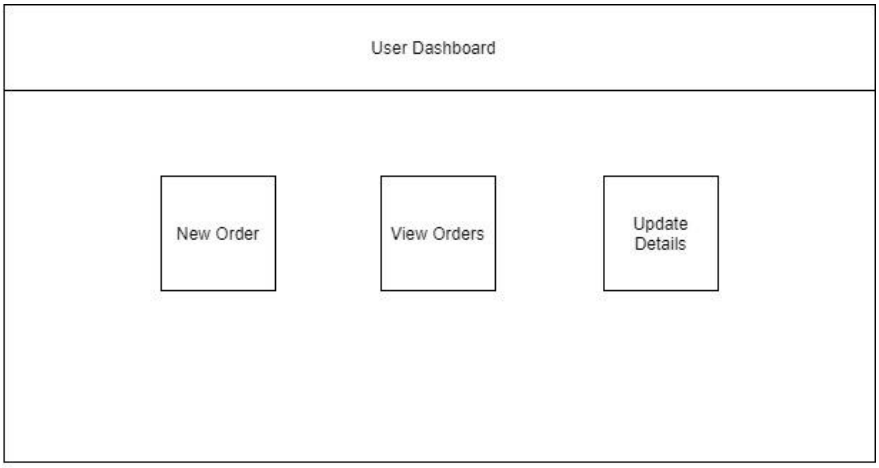
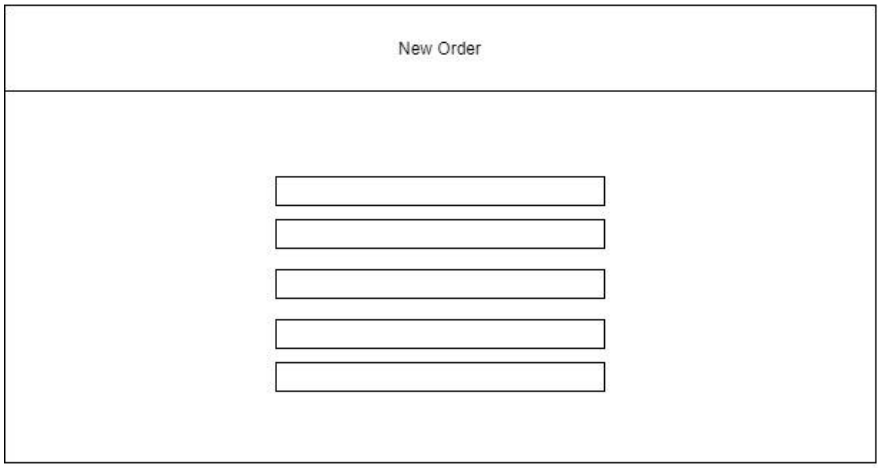
Contents

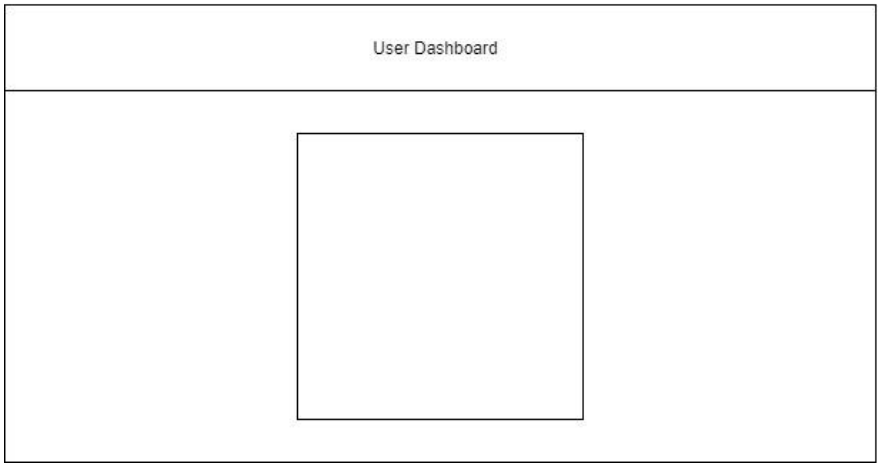
High Level Description of the Project

For this Project we want to design an application that will allow the users to pick parts for their Dream PC and then pay employees to make said PCs. If they are not happy with the pc or want to cancel, they will be allowed to cancel/ Refund their order. This will be done through java for the GUI and we will be using the Relational Database SQLite to store our Parts and user information.

Wireframe







10 Usability Heurisitics adherence

Visibility of System Status

This heuristic is responsible for displaying progress that the user has achieved on the page. This can be done in many ways like showing that a user has clicked a button, to showing a progress bar for how far they have gone.

In We Build PCs, it shows progress by showing the price of the parts selected so far. Progress is also shown through the use of alert messages, such as when you log in successfully the alert messages tells you are successfully being logged in. A lack of progress is also shown through the use of error messages which are sent to a label. Such as a failed login or a failed registration.

Look to the appendices example 1 to see examples of this within the project.

Match Between the System and the Real World

This Heuristic relates to how users understand the layout and language used in the project. An example of this in our project, would be if we had a complicated layout for our website. A user might find it difficult to navigate. To remedy this issue, We Build PCs uses a minimalist layout so it can easily be navigated.

The technical jargon on our project is minimal as well. The only technical language which is used, is with the product themselves, which is necessary for the customer so they know exact details for the product.

User Control & Freedom

User Control & Freedom is the heuristic relates to how much control the user has within the application. An example of this would be if a user made an accidental order and need to cancel it, or if they go into the wrong page by accident. For this issue we implemented a refund issue for accidental orders. Although to make sure that this feature isn't abused by clients, the refund has to be accepted or rejected by a member of staff.

Return buttons were also implemented so that the user can go back to the previous page.

Consistency and Standards

This Heuristic is about maintaining a certain standard within the project and coding standard of the project. There are two types for this heuristic, internal and External.

For Internal Consistency and Standards, the We build PCs project maintains similar designs for each page and keeping buttons in similar places on each page e.g. the logout button.

For External Consistency and Standards, we looked to other businesses which have similar features to what is wanted for the project. Websites like PC part picker (https://pcpartpicker.com/list/) allow the user to pick the parts they want. This is the standard that we wanted for our project.

Refer to Appendices Example 3 to see the part ordering form.

Error Prevention

This heuristic refers to how an application responds to user error. To remedy user error, we used checks for each user input, and if there was a mistake, the input field would be highlighted and would be informed in a error label on the page.

Having these checks allows us to make sure that users don't unknowingly make unnecessary entries in the database and thus saving valuable memory. Refer to Appendices Example 2.

Recognition vs. Recall in User Interfaces

Recognition vs. Recall refers to the process of how a user remembers a process. Recognition requires less cues to recognise. For example if recognition would be a question like 'Is Dublin the capital of Ireland?' whereas recall would be 'What is the capital of Ireland?'

Within the we build PCs project, we want to provide a design that would be recognisable rather than recallable. So when the user is picking parts, we show all the available parts rather than the user having to type out the part they want.

Flexibility and Efficiency

This heuristic is about letting the user have the flexibility to complete a task as efficiently as they want. The project is built as efficiently as possible, so that the user can quickly access any part of the application. However, due to the nature of the business it is important that the user takes their time to think about what they are ordering, Because of this, it is difficult to speed up the process for the user without it affecting the amount of refunds.

Aesthetic and Minimalist Design

This Heuristic relates to deigning pages to focus the attention of the user on what is important on that page. For the project we wanted to not use many colours and imagery that would take away the attention of what the application is there for.

Where we do use images, we use them to have recognisable processes attached to them. Such as the addition icon for a new order. This standard would be used on most sites to mean "create a new order here" and attract the user's attention to it because they recognise it. which helps with the previous Heuristic 'Recall vs Recognition.'

Using this minimalistic design also helps with the signal to noise ratio. Since the design uses very little animation and confusing designs, users are less likely to get confused. Refer to appendices Example 4 to see the user Dashboard

Help Users Recognize, Diagnose and Recover from Errors

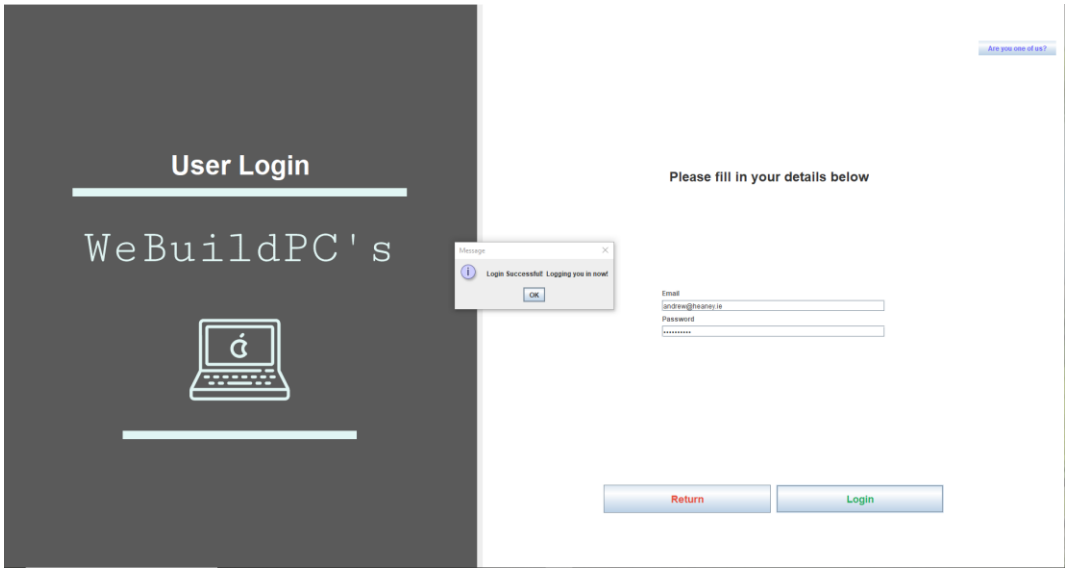
This Heuristic is about letting the user know what is wrong with a process and helping them recover from it. In the We Build PCs project we provide the users with an error message and highlighted text boxes when something they input is incorrect or blank. This is done through the use of checks using If statements. Refer to Appendices Examples 1 and 2 to see this in action.

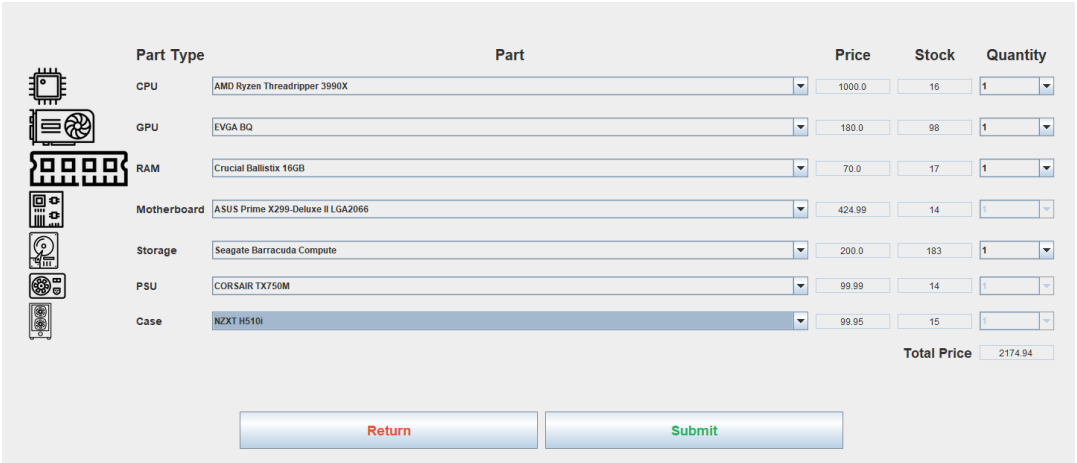
Help & Documentation

For this Heuristic, we have provided both Employees and Users with the necessary documentation needed for this. Within both documents we provide the users the walkthrough needed to understand the system and how it works and since employees have more features, we provided a separate document for them detailing their features that cater to them.

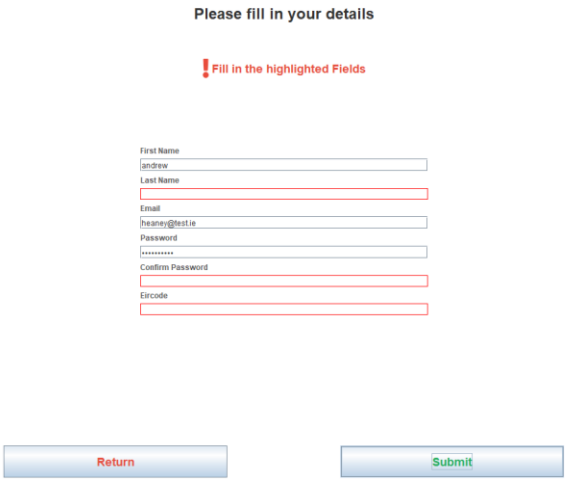
Appendices

Example 1



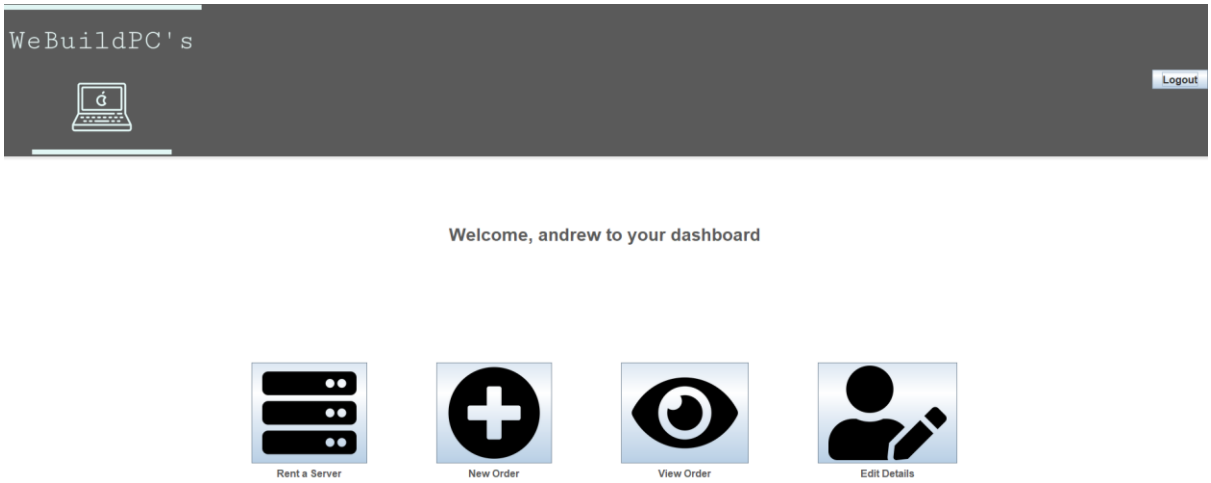


Example 2



Example 3

Example 4



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Code References

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