

No part of the candidate evidence in this exemplar material may be presented in an external assessment for the purpose of gaining credits towards an NCEA qualification.

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NEW ZEALAND QUALIFICATIONS AUTHORITY
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COMMON ASSESSMENT TASK

Level 1 Digital Technologies 2021

91886 Demonstrate understanding of human computer interaction

Credits: Three

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of human computer interaction.	Demonstrate in-depth understanding of human computer interaction.	Demonstrate comprehensive understanding of human computer interaction.

Type your School Code and 9-digit National Student Number (NSN) into the space below. (If your NSN has 10 digits, omit the leading zero.) It should look like “123-123456789-91886”.

Make sure you have the TWO video files.

Answer ALL parts of the assessment task in this document.

You should aim to write **800–1500 words** in total.

Your answers should be presented in 12pt Times New Roman font, within the expanding text boxes, and may include only information you produce during this assessment session. Internet access is not permitted.

Save your finished work as a PDF file as instructed by your teacher.

By saving your work at the end of the examination, you are declaring that this work is your own. NZQA may sample your work to ensure this is the case.

Achievement

TOTAL

03

ASSESSOR'S USE ONLY

INSTRUCTIONS

The video files each show a user interacting with a website. The task in this assessment requires you to review the interactions in terms of the usability heuristics below.

In parts (a), (b), (c), and (d) you will refer to ONE of the websites. In part (d) you are also to refer to another website – this can be the one shown in the other video, or another that you have studied.

Read all parts before you watch the videos. You may play, pause, and restart the videos as often as you like. *Note: The videos have no sound.*

You should illustrate your answers with screenshots from the videos.

RESOURCE: Nielsen's Ten Usability Heuristics

“Usability heuristics” are general principles or “rules of thumb” to help measure the effectiveness of a user interface. You will be familiar with Jakob Nielsen's ten usability heuristics summarised below.

1. Visibility of the system's status
2. Match between the system and the real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Help users recognise, diagnose, and recover from errors
10. Help and documentation

Source (adapted): Nielsen, J. (1994, updated 2020). 10 Usability Heuristics for User Interface Design. <https://www.nngroup.com/articles/ten-usability-heuristics/>

ASSESSMENT TASK

State the name of the website shown in the video that you will write about in your answers.

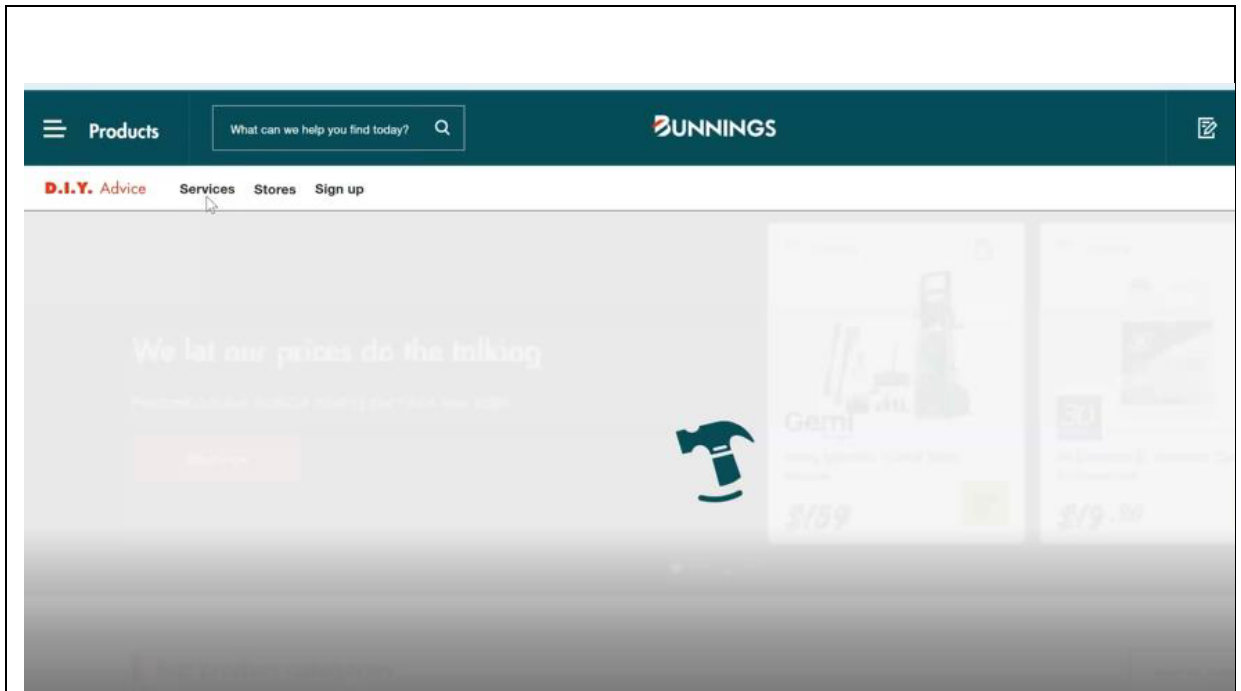
Bunnings warehouse.

- (a) Briefly describe the purpose of this website. What does the user want to achieve while they are using it?

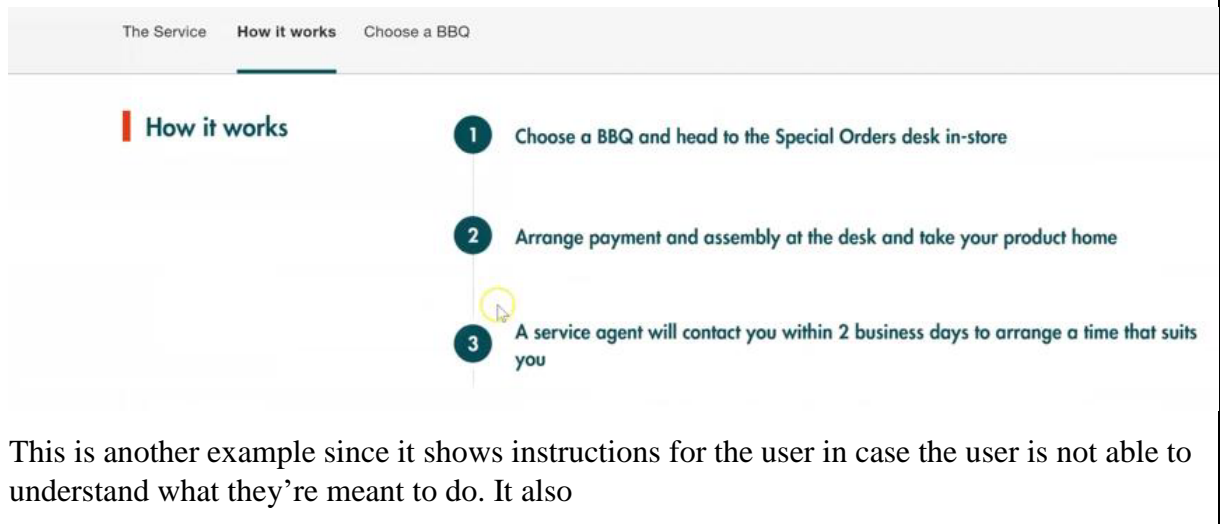
The purpose of this website is too show and sell customers their products such as barbecues, furniture, wood, Etc. The user wants to buy and ship items to their home and if so get installations inside of their household.

(b) Describe a way each of the following usability heuristics is shown in the website interface. Illustrate your answers with screenshots from the video.

(i) Visibility of the system's status

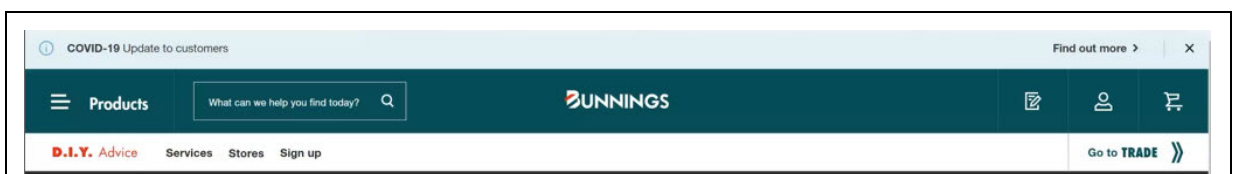


The loading icon in the middle of the screen shows that the website is loading and will only take a few seconds to load which helps prevent confusion for the user. This helps the user understand and recognize what's always happening within the website.



This is another example since it shows instructions for the user in case the user is not able to understand what they're meant to do. It also

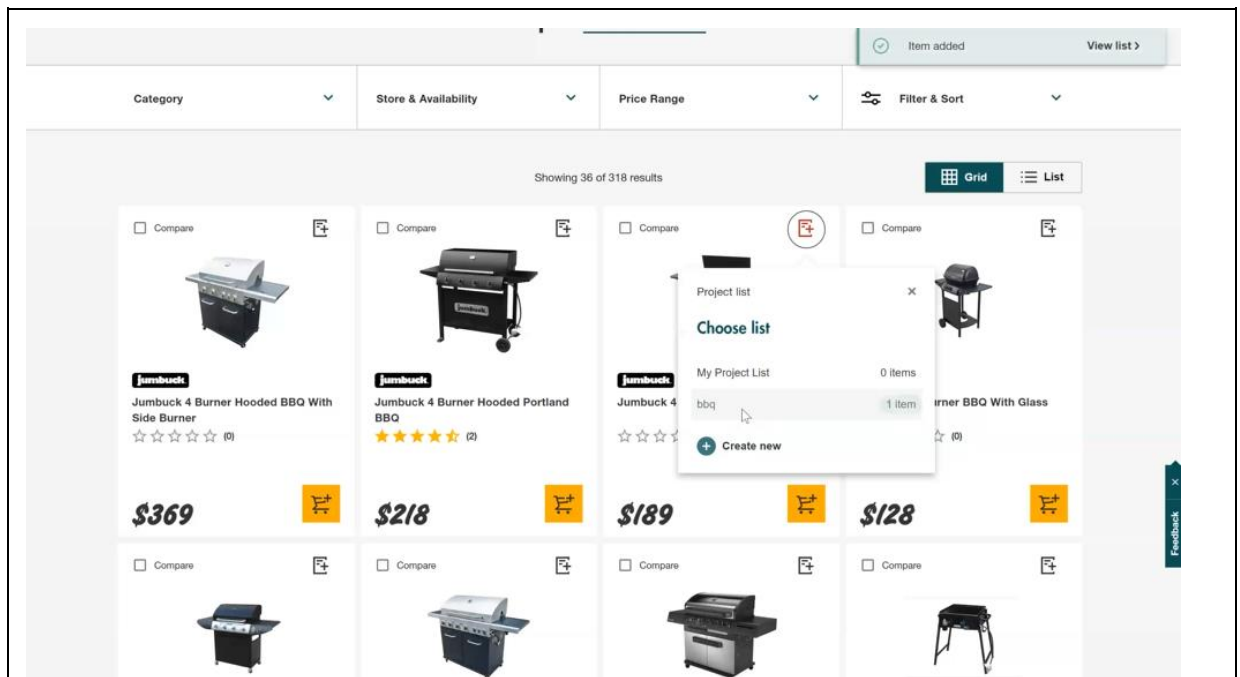
(ii) Match between the system and the real world



The icons in the screenshot such as the magnifying glass, the person and the shopping cart are all universal icons that have been used many times in different websites so for the user it is easy to understand where things are. The magnifying glass indicates that it's a search bar

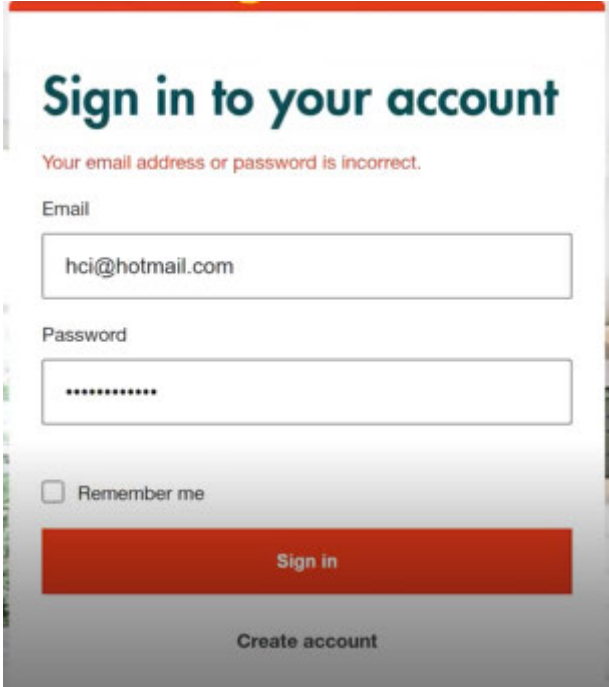
where you can search anything you want within the website, the person indicates that that's where you log in, sign out or do anything with your account and the shopping cart is your things you want to buy. All of the icons are easy to understand for the user instead of using computer jargon that the user doesn't understand.

(iii) Aesthetic and minimalist design



Bunnings design . It has price ranges, drop down boxes for availability of the product, the price ranges and you can filter and sort products to suit what's to your liking. Bunnings has an aesthetic design as it looks pleasing to the eye for the user and sticks to a color scheme of pine green, white which makes the website look nice. The minimalist part for Bunnings website is good as it doesn't have anything to over the top but is simple to understand.

(iv) Help users recognise, diagnose, and recover from errors



The image shows a sign-in form with the following elements:

- Header:** "Sign in to your account" in a large, dark blue font.
- Error Message:** "Your email address or password is incorrect." in a smaller, red font.
- Email Field:** A text input box containing "hci@hotmail.com".
- Password Field:** A text input box with masked characters (dots).
- Remember me:** A checkbox labeled "Remember me".
- Sign in Button:** A large red button with the text "Sign in".
- Create account Link:** A link labeled "Create account" below the sign in button.

This shows the heuristic, Error recovery by telling the user that they have made a mistake in either the email address or password. By telling the user that either the email address or password is incorrect the user should be able to identify the problem and fix it.

(c) Discuss how successfully – or unsuccessfully – each of the following usability heuristics is demonstrated in the website interface.


(i) Visibility of the system's status

This heuristic is demonstrated successfully in the websites interface as the user knows what's happening at all times, for example, the user knows if a product is in stock or out of stock, it gives them instructions in case the user is stuck and it shows the user if the website is loading something or not.

(ii) Consistency and standards

The heuristic Consistency and standards was shown successfully in Bunnings website where

(iii) User control and freedom



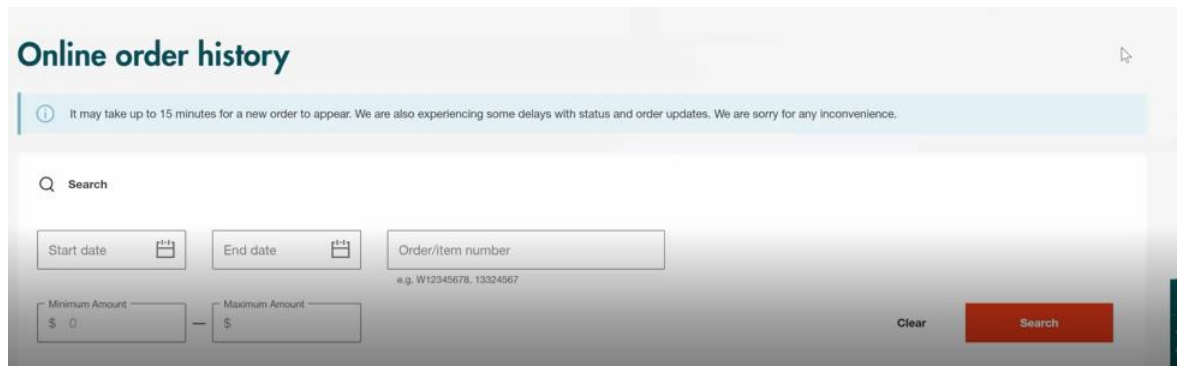
The screenshot shows a shopping cart item for a 'Jumbuck 4 Burner Flat Top Delta BBQ'. The item is priced at \$378, with an individual item price of \$189. Below the item name, there are quantity controls: a minus sign, the number '2', and a plus sign. A mouse cursor is hovering over the plus sign, indicating the user can increase the quantity.

Here it shows that the website is able to add or subtract the number of the same product you want to buy if you want to buy more of the same product.




The screenshot shows a delivery address field with the text 'Wellington Street, Freemans Bay, Auckland'. To the right of the text is a small 'X' icon, which is used to delete the address.

Here it shows that you can delete something that is incorrectly spelt instantly by just pressing the X on the side of the search bar



The screenshot shows an 'Online order history' search interface. It includes a search bar, a 'Start date' field, an 'End date' field, and an 'Order/item number' field. Below these fields are 'Minimum Amount' and 'Maximum Amount' fields. A 'Search' button is located at the bottom right of the interface.

And here the user can check their online order history if needed by just typing in the start date, end date and the order/item number.



The website is able to show this heuristic successfully through the screenshot and discussions I have said above. The heuristic means that there should always be an “emergency exit” for something that is mistaken or accidental and the Bunnings website was able to create multiple “exits” If you were to make a mistake.

- (d) In this part you will also refer to the website interface shown in the other video OR another that you have studied.

If you do wish to refer to another website that you have studied, state its name and briefly describe its purpose here

Mitre 10, The purpose of the website is too sell users their products such as gardening tools, wood, lawn mowers, furniture and all kinds of items.

- (i) Comment on similarities and differences between the two interfaces in terms of at least TWO of the usability heuristics on [page 2](#). Which interface follows these heuristics best, and why?

The two websites show the heuristic Help users recognise, diagnose, and recover from errors, and example of this is when Bunnings and mitre 10 showed the user that their email address or password was wrong when signing into an account. Another heuristic that the two websites show similarities in is Match between the system and real life. It is shown that in both of the websites they seem to have similar icons which represent the same things. A difference in both of the websites is the heuristic Aesthetic and minimalist design. This is shown when searching for products, mitre 10 shows tick boxes on the brand, size and price on the left hand side of the screen, while the Bunnings website has a drop box for these things. The mitre 10 also has a colour scheme of orange and white while the Bunnings website has a colour scheme of pine green and white. Another difference between the two websites is the heuristic Visibility of the system status. For the Bunnings website they show that the product they searched for is loading while the mitre 10 website just freezes and randomly pops up the product you were searching for.

- (ii) Referring to the usability heuristics, suggest and explain how you would apply ideas from one of the interfaces to make at least TWO improvements to the other one.

Achievement Exemplar 2021

Subject	Level 1 Digital Technologies	Standard	91886	Total score	03
Q	Grade score	Annotation			
-	A3	The candidate has provided a basic description of the role of the interface. They have successfully described the four given heuristics and provided an example for each from their chosen website. Although the candidate has attempted part (c) they have provided very little in the way of an evaluation.			