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COMMON ASSESSMENT TASK

Level 1 Digital Technologies, 2019

91886 Demonstrate understanding of human computer interaction

Credits: Three

Achievement Criteria		
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 header at the top of this page. (If your NSN has 10 digits, omit the leading zero.)

Make sure you have the TWO video files.

Answer all parts of the assessment task in this document.

Your answer should be presented in 12pt Arial font, within the expanding text boxes, and may only include information you produce during this examination session.

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

Save your finished work as a PDF file with the file name used in the header at the top of this page ("SchoolCode-YourNSN-91886.pdf").

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 that this is the case.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

INSTRUCTIONS

You are to watch a screen-capture video that shows a website's user interface, and then respond to all parts of the assessment task.

You may play, pause and restart the video as often as you need to. (The video has no sound.)

In your answers, you should use the snipping tool (Windows) or take screen shots (Mac) from the video to illustrate the points you make.

Read all parts of the assessment task before you begin.
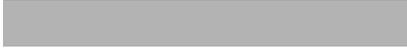
From the two videos provided, type your chosen screen-capture video in the space below:

Begin your answers on page 3.

RESOURCE: Nielsen's Heuristics

Source (adapted): https://www.nngroup.com/articles/ten-usability-heuristics/.
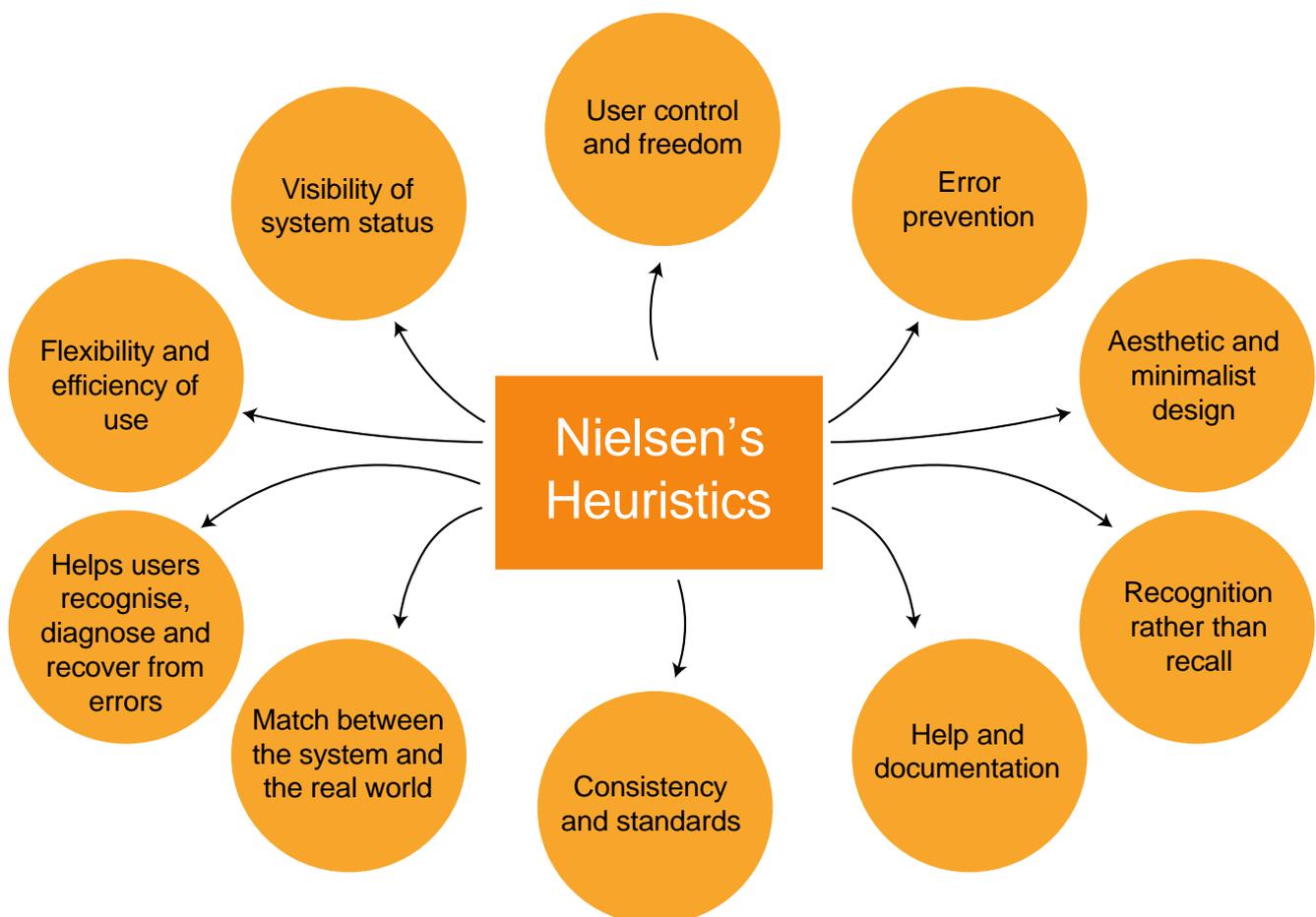
ASSESSMENT TASK

(a)   Describe the role of the interface of your chosen website.

The role of Trade Me's website is to get users to auction for items that are listed by other users. Items can be found by users by having them browse the website, either through the numerous categories on the website as well as a search bar. Trade Me also provides other services such as: comparing insurances, getting insurance, looking for holiday homes, finding services, dating, vehicle reports as well as getting personal loans.

The expected users are going to be people aged 18+ as stated by the registration requirements. The website also has a blue and yellow colour scheme on the auctioning part of the website whilst having a green and blue one on the insurance part of the website.

(b) Identify examples from the interface that illustrate at least FOUR of Nielsen's Heuristics, which are shown on page 2. Illustrate your answer with screenshots from the video.


**Help users recognise, diagnose and recover from errors**

The heuristic helping users recognise, diagnose and recover from errors refers to what the website does when a user makes a mistake. Firstly, it lets the user know that there is a mistake, then what it is and finally what the user can do in order to fix it. This heuristic is important because if the problem is not fixed immediately, it may create problems in the long run. This heuristic is seen in the website when you are confirming your password. When you click the 'Create your account' button and the passwords don't match the confirm password box will be highlighted red along with the message: "This doesn't match your password try retyping it. Still having trouble? Try retyping your original password too." This is also shown when you are trying to input your age (making sure your age is between 18-119), phone number (It's the right length) and address (You actually insert one).
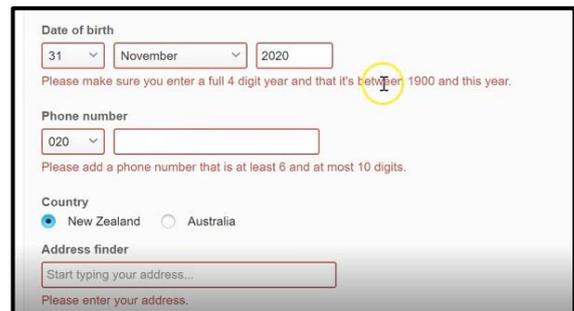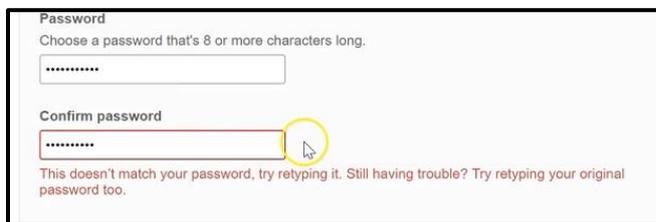

Consistency and standards

The heuristic consistency and standards refers to whether the website is consistent in its layout and functions. This is important because users may get confused or frustrated if the website was not consistent. This heuristic is seen in Trade Me's website when you look at their auctioning pages. They all follow the same colour scheme (blue and yellow with a white background), same navigation bar locations (top one for different categories and services whilst the left one for searches within that category) as well as the same font. They also use a completely different colour scheme for Trade Me Insurance. This is also using this heuristic as the different colour schemes highlight the different services the website provides (auctioning vs insurance). However, they keep that top 'services' bar the same to remind users that they are still on the same website.
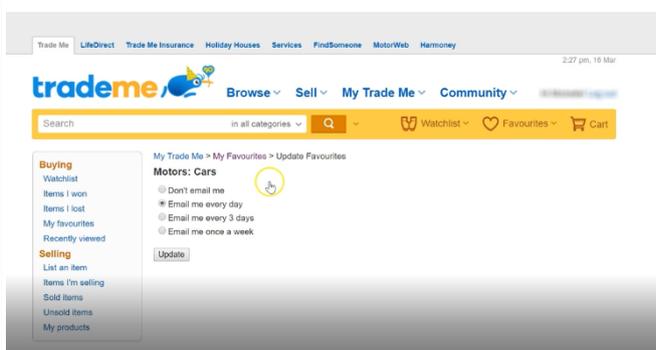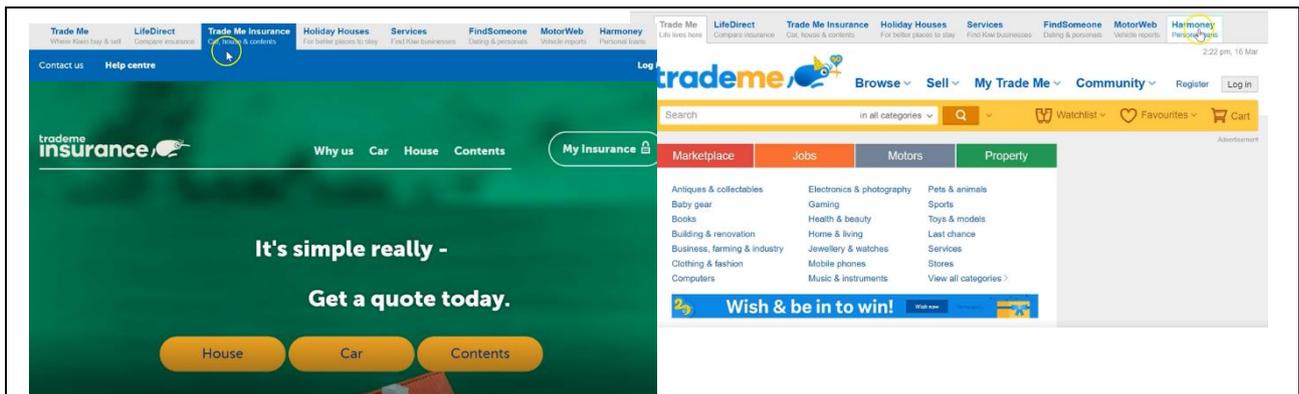
Flexibility and efficiency of use

Flexibility and efficiency of use refers to whether the average user can simply use the website without much hassle whilst allowing more advanced users to use functions that provide shortcuts so that they get their desired result faster. If the website was too advanced, the average user would have a hard time understanding how to use the website and if it was too simple, an advanced user may get frustrated by how long it takes them to get their desired result. In Trade Me's website, this can be seen when it has a navigation bar on the side which allows the user to make a more detailed search of what they want. This is done by allowing them to adjust their price range, condition of the product as well as any filters specific to that category (e.g whether it's a 2wd or a 4wd in the motor section).
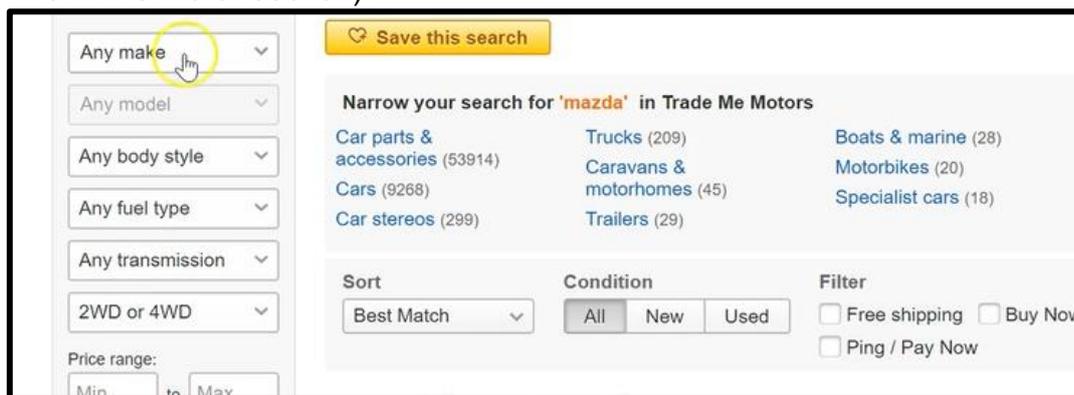
Help and documentation

Help and documentation refers to whether the user can get access to any help if they have any issues or queries with regards to using the website. This is important because the user may not be able to use the website if they can't fix their issue resulting in less sales occurring on the website. On Trade Me, this heuristic is applied by having a webpage dedicated to helping users with any queries or issues. This page comes with a search bar as well as navigation bars so that it is easy for the user to browse the page and find the solution that they are looking for.

(c)   Evaluate the effectiveness of the interface using Nielsen's Heuristics. To demonstrate an in-depth understanding, evaluation of more than FOUR heuristics is recommended. Illustrate your answer with screenshots from the video.

We can see a mediocre use of the heuristic, help users recognise, diagnose and recover from errors on the sign up page. This is because the user does get informed of any initially incorrect information. For example, if the password and confirm password do not match. The user will be informed that they don't. This is an effective use of this heuristic. However, when you are inserting a new phone number the website does not check if the number is valid or not on the same page you sign up on. Instead, it shows an error message after clicking the 'create your account' button. This is annoying for the user as it means they have to click a link to go back to the 'create new account' page, possibly having to insert their information all over again.

Having the incorrect information's box highlighted red by the website is an effective use of the heuristic visibility of system status as the user now knows that some information in that box is incorrect. This is better than saying the error near the top or bottom of the page because the user would know exactly where the error is thanks to the highlighted box.

When we are browsing Trade Me for items listed, we can see the very effective use of the heuristic flexibility and efficiency of use. If you look at the example video, the user could just look at Mazda's, which would be what a more basic user would do. The user could also look at more detailed searches. For example they could look filter the car by its location, make, model and body style. This means that both basic and more advanced users will be satisfied when browsing the website.
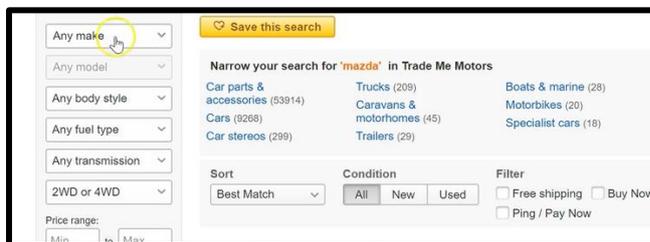

However the downside of having all of these fancy searching/filtering options on the browsing pages is that the website ends up getting cluttered. This means that these pages show an ineffective use of the heuristic aesthetics and minimalist design. This is because all of these fancy search functions aren't hidden on the website making them an eyesore to anybody browsing the website. This is because they are competing with the listed items for the user's attention.
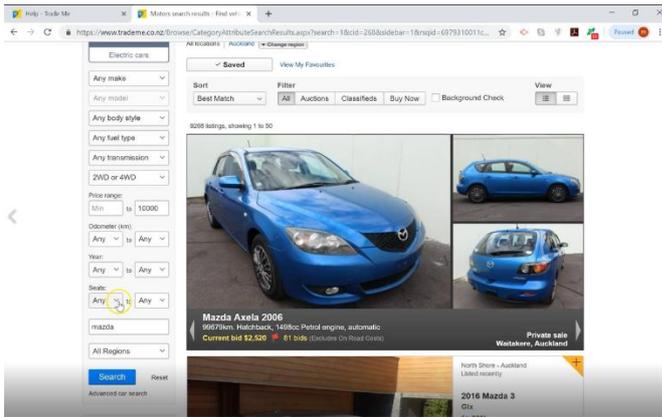
As you can see, the search functions end up taking up a lot of space.

When browsing between webpages on Trade Me, we can see the effective use of the heuristic consistency and standards. This is because the layout for every webpage is similar and if they aren't the different layout highlights that there is a different purpose for this webpage. For example, all browsing pages are similar in colour scheme (yellow and browsing) and layout (nav bar at the top of the page and a search bar at the side if you're looking at more detailed pages). Using the similar layout is an effective use of this heuristic because it tells the user that they are looking at a browsing page. Sometimes the layout of Trade Me's website changes, although this may be confusing for the user initially it is also an effective use of the heuristic. This is because the change in layout highlights a different purpose of the website. For example, the colour scheme and layout change in the insurance page because trade me is offering insurance rather than auctioned items.
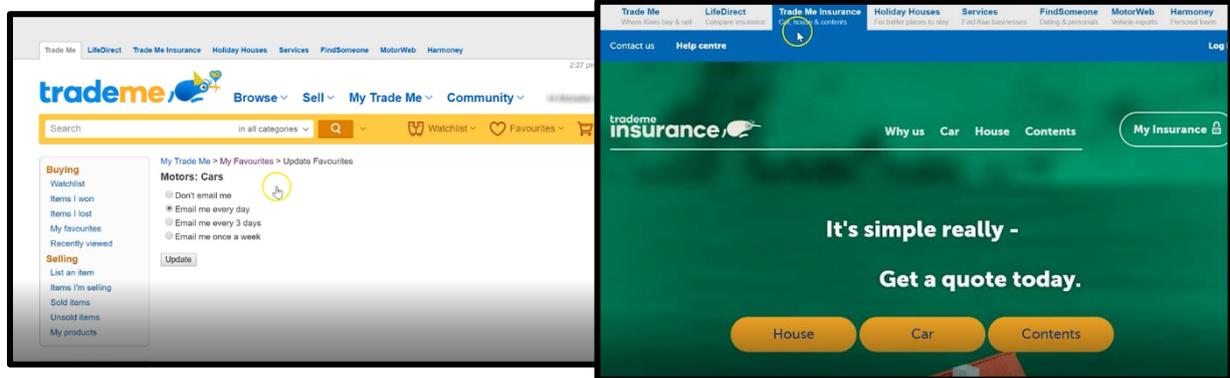
(d) Compare and contrast the interface in terms of Nielsen's Heuristics with another interface of your choice. This second interface could be from the other screen-capture video provided, or an interface you have studied.

When browsing for different vehicles on both Trade Me and Autotrader. We can see the effective use of flexibility and efficiency on both websites. This is shown by the search functions that filter for many variables when looking for a vehicle. These functions filter for things such as model, brand, price etc. However, Autotraders search panel is a lot better than Trade Me's in terms of aesthetics and minimalist design. This is because it is a lot more compact than Trade Me's. This is because the categories for each filter are in the box the information is in whilst Trade Me has headings. It could possibly be even better if the advanced car search in the bottom left hand corner of the panel leads to an even more advanced search panel. This would mean that Autotrader would have even better aesthetics and minimalist design as well as flexibility and efficiency of use. I am unsure whether Trade Me's website does not indicate that it has a similar function as the 'advanced car search' in the bottom left of their panel does not appear to be a sort of link or function.
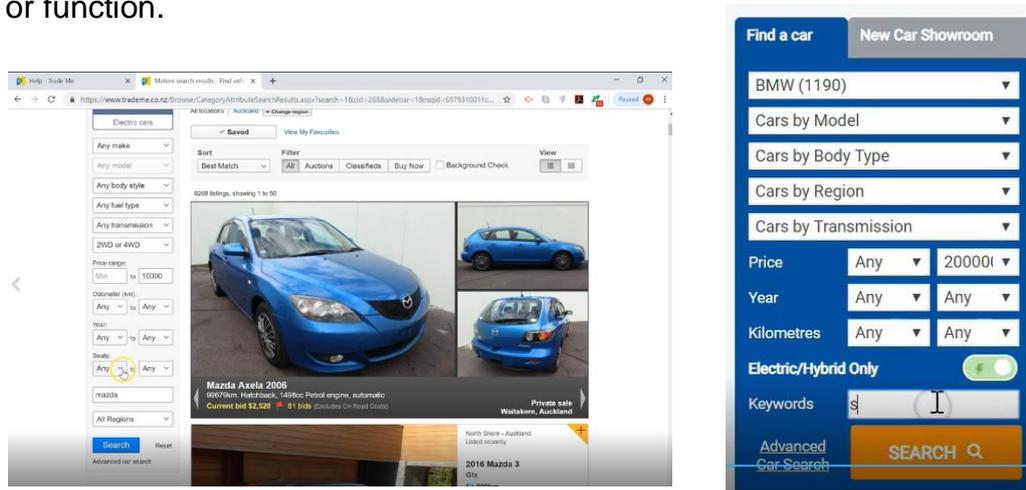

When registering for both websites, both seem to redirect users to a new webpage if they inputted incorrect information. This is not an effective use of the heuristic help users recognise, diagnose, and recover from errors. This is because the user may be annoyed that they have to click a link to go back to the signup page. It is especially not effective for Autotrader's website as they require you to re-enter your password. I am not sure whether you have to re-enter any information on Trade Me's website.

Both also have poor error prevention as they could prevent these mistakes from happening if they checked the information before the user clicked sign up/create new account. Comparing this to Hoyts's website, which indicates whether the information is correct through a combination of symbols/highlighted boxes. This is a lot more effective than Trade Me as having this error prevention technique means users can recover from errors a lot faster.

Both websites give the user the ability to remove items from their watchlist. This is a good example of user control and freedom.

Both websites have a poor implementation of aesthetics and minimalist design for different reasons. This heuristic is poor on Autotrader's website because of the one column layout of the website in combination with the large amount of ads leads to a

cluttered website. This means that listings aren't as easy to see making the website not achieve its purpose as well (to sell cars). Trade Me on the other hand has poor aesthetics because of the way that the search panel is spread out over the page. This confines the listings to a smaller space, making them harder to see. Overall, Trade Me has implemented this heuristic better as the listings cover a larger proportion of each webpage.
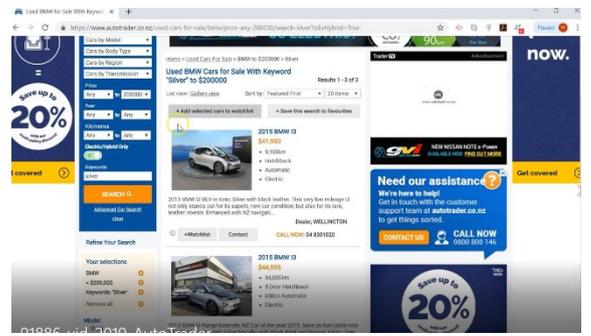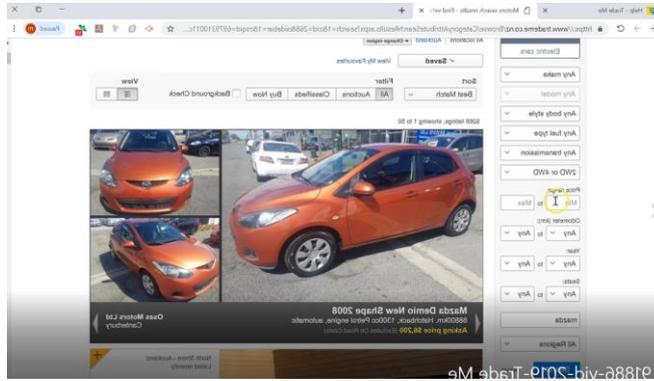
(e) Use the comparisons you made in (d) as a starting point to recommend possible improvements to your chosen interface. Justify your recommendations in terms of Nielsen's Heuristics.

On Trade Me's website I would make it so that the search panel would initially be in a compressed state when you enter a webpage. The search panel could then be expanded if the user wanted to perform a more advanced search. This would improve the aesthetics and minimalist design of the website as there would be less clutter on the webpage. This means that it would be easier for users to see the listings, making their experience more enjoyable. This means they may use the website more often in the future, increasing sales.

When creating a new account, I would suggest that Trade Me makes it so that it checks whether the user's inputted information is correct/valid before they click the sign up button. For example it would check whether the phone number inputted is the correct length as well as an actual number before allowing the user to create an account. This would improve the error prevention of the website as the user no longer has to fix any errors after they click the sign up button. This means that they save time as they will no longer be redirected to another webpage. This also may mean that signing up is less annoying, creating a better first impression for the website.

With the previous change in mind, we could possibly highlight the boxes information as well as add symbols next to them to indicate whether the information is correct or not. For example, the box could be highlighted green and be given a tick if it is valid/correct and be highlighted red and be given a cross if it's invalid/incorrect. This would improve the visibility and status of the signup page but would negatively affect the aesthetics and minimalist design as the 'create new account' page is now more cluttered.

If the above changes with regards to error prevention aren't implemented. I would suggest that the website keeps the user on the same webpage even if the phone number is not valid. This is because it would improve the time for the user to recognise the problem as well as fix it. This is because they would not have to go back into a new webpage, saving time. This would improve the heuristic, help users recognise, diagnose and recover from errors when creating a new account.

Excellence Exemplar 2019

Subject	Digital Technologies		Standard	91886	Overall grade	08
Q	**Grade**		**Annotation**			
a		The candidate has provided a description of the role of online marketplace Trade Me.				
b		The candidate clearly describes four heuristics and provides examples for each. These included, 'help users recognise, diagnose and recover from errors', 'consistency and standards', 'flexibility and efficiency of use' and 'help and documentation'. They have also made a few evaluative comments throughout (e.g. "if the website was too advanced, the average user would have a hard time understanding how to use the website and if it was too simple").				
c		Here the candidate stated how well the interface met each of the heuristics given and how the interface violated a particular heuristic (e.g. where they talk about inserting a new phone number). The candidate's opinion is stated and justified throughout.				
d		The candidate compared and contrasted Trade Me's interface with that of AutoTrader. They also mentioned Hoyts. The candidate discussed which interface did a better job, in terms of heuristics, and provided a clear justification. At one point, they also stated both had poor error prevention and cited Hoyts as an example of what they should do.				
e		The candidate suggested more than two improvements each linked to heuristics. The improvements were reasonable and have been justified by the candidate.				