


Hey SENG1050,

This Friday your first assignment will be due. Now as PASS is not officially part of the SENG1050 course at UoN I can't aid you directly or take questions about the assignment (all of the information is given in your specifications sheet, I added some tips on my blackboard PASS page although reading through spec-sheets accurately particularly as a Comp-Sci, Soft-Eng, Comp-Eng, or IT student is an extremely important skill, let me know if you want to practice it and I'll get a mock task outline put together we can go through next week).

For this week, we'll be designing a website for the front-end of an online market-place not unlike what you would see on eBay, Amazon, Banggood, etc, in fact I'd recommend taking a look at the source code on these sites with your browsers inspector by hitting F12 to see how they work.

As you haven't covered much (if any) JavaScript yet to my understanding, and are just starting XSLT this week in our example we'll just make some HTML pages which we'll manually copy the data across to for each product.

Okay, the specifications are given on the next page. We'll create the example together which I'll write with screen sharing on, I'd suggest going through this on your own at the same time for practice.





CUSTOMER REQUIREMENTS

We'll be making five files in total, index.html, category-list.html, product.html, styles.css, and product.xml – Get creative with what items you'd like to sell. I'd suggest clothing, food, electronics, etc. Yes, we will be making some XSLT next week for our XML document 😊

Requirement Statement: The website must allow for users to view a **homepage**, navigate to a **product category**, view a **list for the category**, and from there navigate to a **specific product page** which will have its data stored in an **XML document** for later use, but should also be accessible to staff from the items page.

Functional Requirements:

- Our pages should be readable by all users
- There must be a consistent color theme and font which matches the logo
- The homepage must link to product categories
- The product categories must link to multiple products
- Products should allow you to go back home, and also back to the product category
- A similar items section, or customers also bought section would be beneficial

Technical Requirements:

- Our pages should be readable by all users
 - Visually impaired users must have their images able to be read out as text
 - Font-choice should be readable on any display
 - The CSS should implement some dynamic scaling for various viewports and displays
 - A dark-mode could be appropriate if it matches the style of the site (BONUS: Integrate a media query to only display this if in browser preferences. BONUS BONUS: Add a switch on the actual website itself that allows for this mode to be switched permanently on or off in a session, see the switch your color scheme button in the bottom right of <https://nubook.nubots.net/>)
- There must be a consistent color theme and font which matches the logo
 - Simply use external CSS so that all pages can be edited simultaneously, and this will make it easier to edit multiple pages in future. The color scheme and logo is up to you!

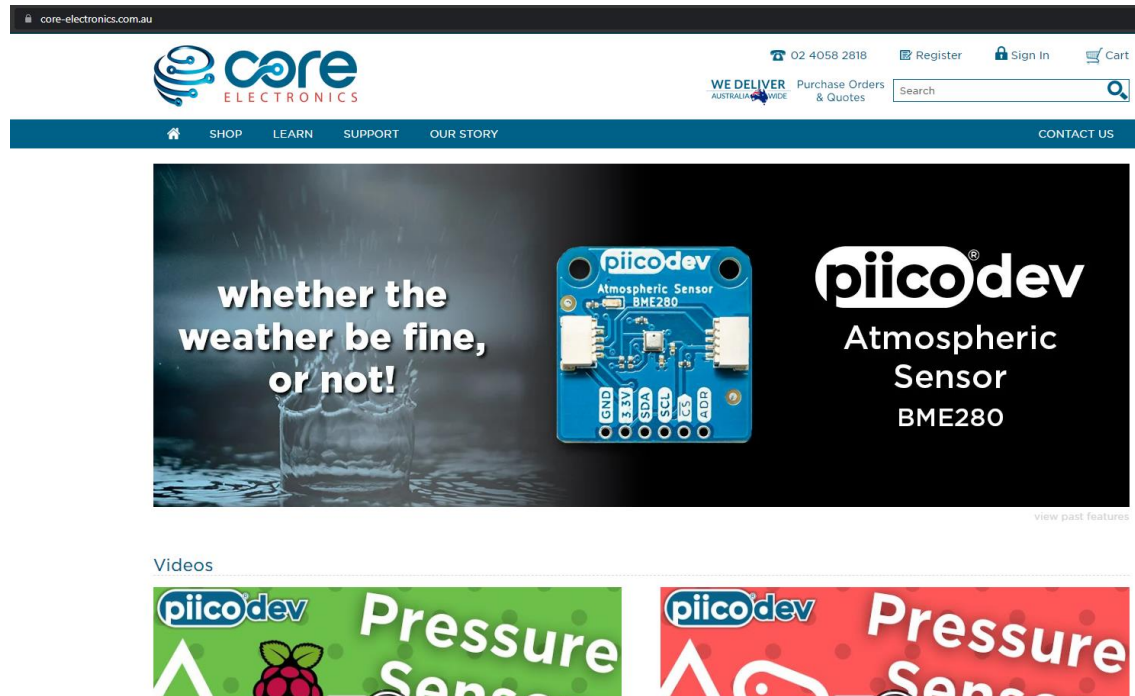
- For all of the linking requirements, use local references, and ensure that you can navigate between pages consistently
 - Personally, I suggest adding a PID or Product-ID to each page, naming the HTML by the PID of the product or putting it in another subfolder named by the PID where the HTML is named index, and making the categories into actual folders with an index.html acting as the list.
 - Makes it much, much easier to add search functionalities, extra categories, scripting to automatically pull items into the lists and so on than if you just have everything in one folder named by their title. Also what happens when the product changes details and you need to update its title like when the manufacturer switches colors or design? Do you update the name of the file too? If so, wouldn't you also need to fix every single link which points to that name?
 - You can see how once you add 20-50 items this becomes extremely impractical to manually adjust and becomes very difficult to automate, this is known as design coupling, you'll learn more about this and cohesion in SENG2130 later in your degree, but you should know that this is a scary thing that causes projects to take way longer and be more expensive to maintain the larger they get, and is part of the reason so many software projects fail. Think scale-able early!

I'm giving you a lot of creative freedom in this task. The outline isn't overly clear, although this is intentional, because when working in the field it is extremely common for clients to tell you what they want their perfect solution to look like, not what they want it to do. It is the Software Engineer's jobs to perform the requirements elicitation to rip out the requirements from their ideas to develop the project sequentially, and so that verification and validation can be completed at the end of the project to test that the solution does what it needs to do, and that the method used to design it was correct. Understanding how project design meets implementation is an essential skill in the industry, I'd highly recommend reading up on this if unsure as it's quite common to be asked about how you approach problem solving in interviews, and no matter what your field is, understanding the Engineering-V is extremely useful!

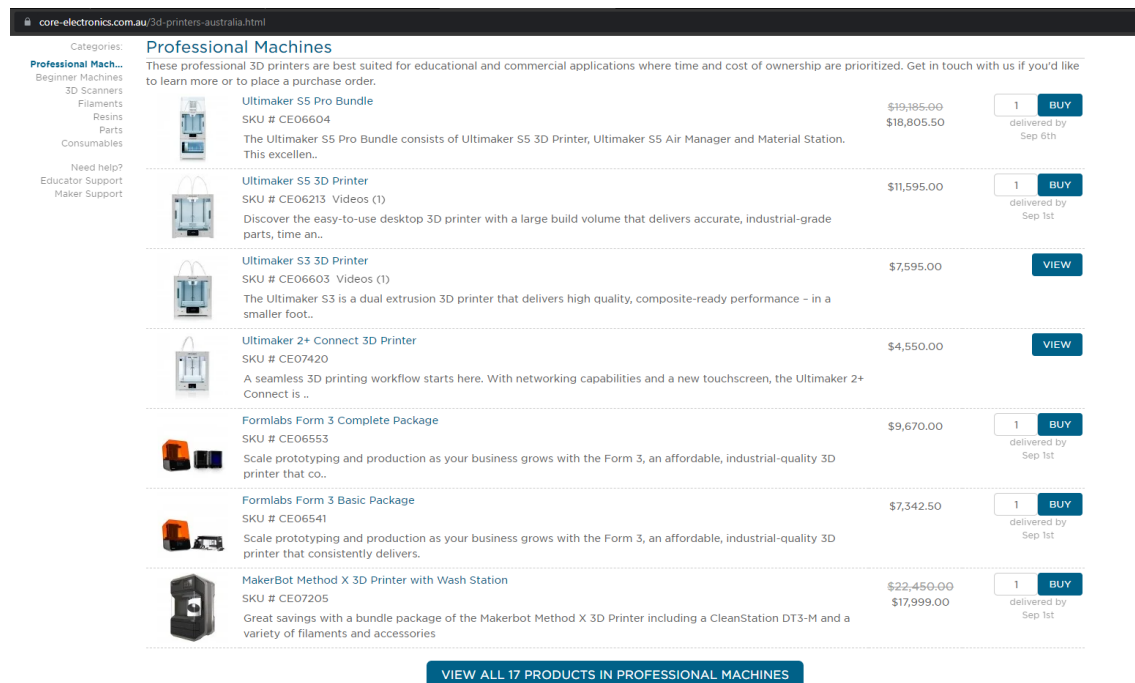


**Lengthy Text
Explaining an
Important
Business Concept**

The result from today should be similar to this example from Core Electronics (where I work) for a mock company you come up with:




Example Homepage



Example Product Category

core-electronics.com.au/ultimaker-s5-pro-bundle.html



02 4058 2818

Register

Sign In

Cart

WE DELIVER AUSTRALIA WIDE

Purchase Orders & Quotes


SHOP

LEARN

SUPPORT

OUR STORY

CONTACT US



Ultimaker S5 Pro Bundle

SKU: CE06604

~~\$19,185.00~~ **\$18,805.50** AUD, inc GST

\$17,095.91 AUD, exc GST

Available with a lead time.
Dispatch by Mon, 20th of Sep


ADD TO CART

Quantity:

ADD TO WISHLIST

Brand: **Ultimaker**


Share a project for this product



Shipping:

- **\$6+** Standard (4+ days*, tracked)
- **\$10+** Express (1+ days*, tracked)
- **FREE** Pickup (Newcastle only)


Shipping costs may increase for heavy products or large orders.
Exact shipping can be calculated on the [view cart](#) page.
*Conditions apply, see [shipping](#) tab below.



Have a product question? [We're here to help!](#)

core-electronics.com.au/ultimaker-s5-pro-bundle.html

Scale up your ambition. The large build volume of the Ultimaker S5 not only lets you print bigger models - it allows you to put multiple parts on a single build plate. Meet demand, maximise efficiency, and enjoy better air quality and 24/7 productivity by combining the Ultimaker S5 with its Air Manager and Material Station.




Introducing the Ultimaker S5 Pro Bundle

Watch later

Share

Remains on the 86%

Watch on 

ULTIMAKER S5

Scale up your ambition. The large build volume of the Ultimaker S5 not only lets you print bigger models - it allows you to put multiple parts on a single build plate. Meet demand, maximise efficiency, and enjoy better air quality and 24/7 productivity by combining the Ultimaker S5 with its Air Manager and Material Station.

See the main features below:

- **Enhanced Reliability:** Active bed leveling ensures a perfect first layer, a closed front controls airflow, and a filament flow sensor will pause your print and notify you if you run out of material. Trust the S5 to do its job while you do yours.
- **Bigger Build Volume:** A build volume of 330 x 240 x 300 mm (13 x 9.4 x 11.8 inches) gives even more freedom to realize your designs or print multiple parts in one go, so you can meet demand with maximum efficiency, while fitting comfortably on your desk.
- **Fast Setup, High Uptime:** With Ultimaker's unique print core design, swap nozzles in seconds to switch between build and support materials, or choose from 0.8, 0.4, or 0.25 mm print cores for fast or detailed prints.
- **Easy Touch Control:** A 4.7-inch (11.9 cm) touch display makes operating the 3D printer effortless, displaying visual guides to explain configuration changes and maintenance, plus a visual preview of your print.
- **Designed to Connect:** The Ultimaker S5 auto-detects material and print core configuration, while over-the-air firmware upgrades make adding the latest features simple. Print over Wi-Fi, Ethernet, or from a USB stick, and monitor progress via the built-in camera.
- **Stay Connected, Stay Productive:** The Ultimaker app lets your monitor and control Ultimaker 3D printers from a mobile device and can even keep you updated with live notifications outside your local network.
- Comes with two rolls of filament; 1x Ultimaker Tough PLA (750g) - Color may vary, 1x Ultimaker PVA (750g)

AIR MANAGER

The Ultimaker S5 Air Manager provides a closed, inside-out airflow throughout the printing process. This leads to a better-controlled environment inside the build chamber and filters up to 95% of ultrafine particles created while printing. The result? A safer work environment and peace of mind when printing with a wider range of materials with an Ultimaker S5.

Have a product question? [We're here to help!](#)

Example Product Page – You would also add some matching XML

Good Luck! I'll be available if you have any questions!