MAN Shopping Cart Simulation Test

**OBJECTIVE**

Design a unit tested frontend application to:

* Display a list of selectable products on a page
* Keep a running total sum of products in the cart using the price information sent from the ShoppingCart API
* Add on shipping costs based on the following rules:

|  |  |
| --- | --- |
| **Cart Value** | **Shipping Cost** |
| Less than 20 | 7 |
| Less than 40 | 5 |
| Greater than 40 | FREE |

* Verify and apply only **one** of the following discount rules:

|  |  |
| --- | --- |
| **COUPON CODE** | **DISCOUNT** |
| freeShipping! | Free shipping regardless of total costs |
| APPL10 | 10% off all Apple products |
| AUDIO15 | 15% off all Audio products |
| ELEC25 | 25% off all Electronic products |

Supported Categories are:

* Electronic
* Accessory
* Audio

**EXPECTED FUNCTIONALITY**

* Maintain a live running total of the shopping cart including any discounts already applied
* Must have the ability to edit the shopping cart to remove or add more of existing items already in the cart
* Ability to filter product list based on *category*
* Sort products based on different criteria, for example:
  + Alphabetically
  + Prices

**NOTES**

* **SOLUTION**
  + Please try to complete this test in 2 hours
  + We expect to see a well-designed, well-structured, and unit tested solution. You can use either Vue, React, or Angular. Angular is preferred.
  + Please include a README explaining your thoughts on certain functionalities implemented and what you would have done if you had more time on the solution
  + The Coupons are structured as following:



* **API**
  + ShoppingCart API can be found at <https://man-shopping-cart-test.azurewebsites.net/swagger/index.html>
  + In the case that the API is unavailable, use the dockerised ShoppingCart API locally by using *docker-compose up*

**USE CASE**

Given a cart that contains:

* 2 headphones from Apple, at 10 per unit
* 1 USB cable from Apple, at 4 per unit
* 1 monitor from HP, at 100 per unit
* 1 laptop from Dell, at 1000 per unit

Product types:

* Headphones: Electronic, Accessory, Audio
* USB cable: Accessory
* Monitor: Electronic
* Laptop: Electronic

Scenario:

* If a discount code of “AUDIO15” is applied, all headphones would have a 15% discount applied
* If a discount code of “APPL10” is applied, all Apple products in the cart, i.e, the headphones and USB cable, would each have a 10% discount applied