

CMPT661 Web Development - Spring 2025

Practical Midterm Exam

Instructions:

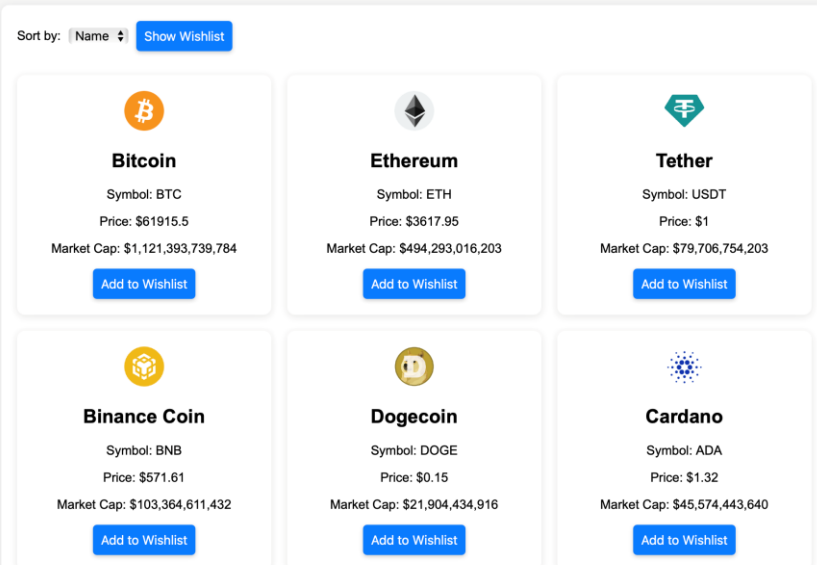
- The exam duration is **120 minutes**. Read the questions carefully and plan your time accordingly.
- Push your code to **GitHub** regularly (at least every 30 minutes) to avoid unpleasant surprises.
- The exam is **open book**. In case of plagiarism, both parties will receive **0 points**. **Do not share or receive any code**.
- **Using AI tools (such as ChatGPT, Copilot, or any AI-powered code generator) is strictly forbidden**.
- Once you complete the exam, you should:
 - Add a screenshot for each question to the provided testing sheet.
 - Push your **code and testing sheet** to your GitHub repo under the `midterm` subfolder.
 - Demo your work before leaving the exam.

Cryptocurrency Wishlist Tracker

In this exam, you will apply your web development skills to build a **cryptocurrency wishlist tracker**. You will fetch data from an API, allow users to store cryptocurrencies in a wishlist, and implement sorting and display functionalities. The complete working web application will be demonstrated at the start of the exam.

Implementation Tasks:

1. Fetch and Display Cryptocurrency Data [30 pts]



Cryptocurrency Price Tracker

Sort by: Name ▾ Show Wishlist

Coin	Symbol	Price	Market Cap
Bitcoin	BTC	\$61915.5	\$1,121,393,739,784
Ethereum	ETH	\$3617.95	\$494,293,016,203
Tether	USDT	\$1	\$79,706,754,203
Binance Coin	BNB	\$571.61	\$103,364,611,432
Dogecoin	DOGE	\$0.15	\$21,904,434,916
Cardano	ADA	\$1.32	\$45,574,443,640

- Retrieve cryptocurrency prices from the following API: [CRYPTO API](#)
- Display the following details for each coin in a **grid layout** as shown in this figure.
 - **Name, Symbol, Price (USD), Market Cap and Icon**
- Ensure that the grid layout is **fully responsive** (css already provided)

2. Implement Sorting [20 pts]

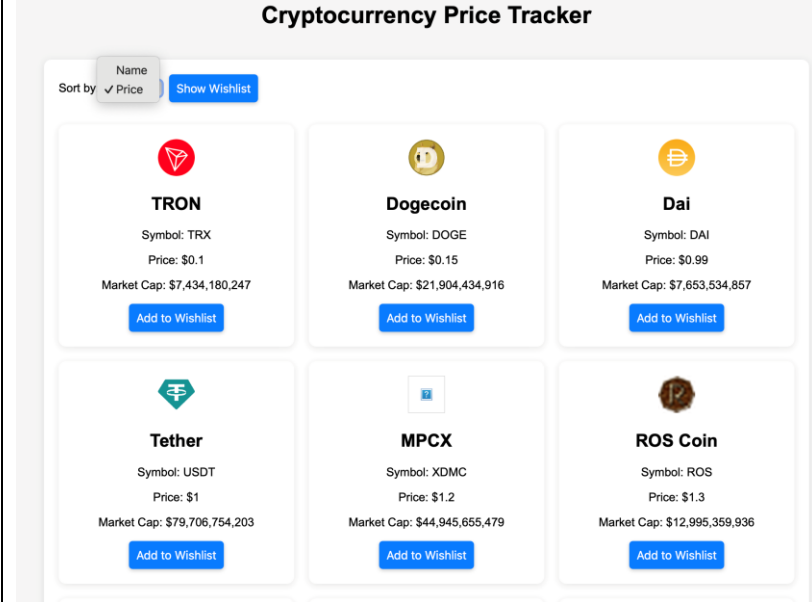


Figure 1 : After sorting by price

- Provide a **dropdown menu** to allow sorting by:
 - **Name** (Alphabetical order)
 - **Price** (Low to high)
- Ensure that when the user selects a sorting option, the cryptocurrency list is re-rendered accordingly.

3. Implement a Wishlist Feature [20 pts]

- Add “Add to Wishlist” button for each cryptocurrency.
- Clicking the button should store the selected coin data on a Wishlist on the server-side.
- If a user tries to add a coin that is already in the wishlist, an **alert should be displayed** informing them that the coin is already in the wishlist.

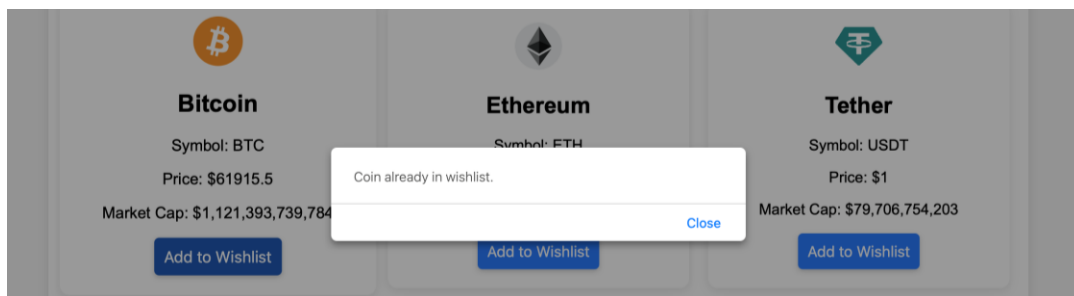
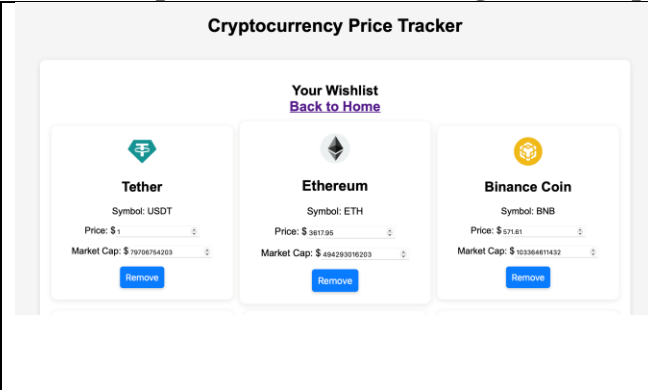


Figure 2 : Adding to wishlist an already existing coin

3. Implement Wishlist Management [30 pts]



- Provide a “**Show Wishlist**” button, which loads and displays all saved wishlist coins.
- When a user views the **wishlist**, they should be able to:
 - **See all previously saved cryptocurrencies.**
 - **Remove a cryptocurrency from the wishlist.**
- Ensure that removing a cryptocurrency updates the stored list and the displayed wishlist accordingly.