Week 2 Exercises Information

Introduction to the code bundle (again)

For the first half of semester we will be running, testing, and debugging our code in the Chrome browser (results may vary if you use a different browser).

We assume a Chrome browser, Windows desktop, and VSCode text editor. If you have a different type of machine everything should still work but details like how to open files and keyboard shortcuts may vary - we will assume you already know how to do this on your own machine.

We will be using the Node Package Manager `npm` to install our dependencies, **including TypeScript**, and the `vite` build tool to run our code and execute tests (you don't need to know what this is, just provided here for context).

Ensure you have installed `npm`. You can follow the official instructions to find how to do this on your operating system.

Each week you will be given a code bundle on Moodle. Once you unzip the bundle onto your local drive there will be a file called `package.json`.

Running the code bundle

Open a terminal in the folder containing `package.json` (this should be the folder you just extracted).

1. Run `npm install` (installs the dependencies) and
2. `npm run dev` (starts the development server to access our code and tests), then
3. Look in the terminal and go to the url in your browser (e.g. http://localhost:5173/).

Completing the exercises

This page is the `index.html` file and it loads and tests a file called **main.ts** which you will edit to complete the exercises. Scroll down to see the test results listed under each exercise description below.

We recommend the VSCode editor to make your changes in **main.ts**. You may use a different one if you have a strong editor preference.

To start VSCode, hit windows-key and type "code" and press enter.

Inside VSCode, go to File -> Open Folder... and navigate to where you unzipped the code bundle.

Then click main.ts in the Explorer to open it. Start writing code and press ctrl-s to save.

After making changes and saving in the editor, the server should automatically restart and refresh your browser page. If it does not, focus your terminal and press `r` to restart the server.

Type annotations

In `main.ts` there is some JavaScript with `any` types, labeled with `IMPLEMENT_THIS`. Please replace this with the correct type annotations. Follow the instructions to figure out the types.

It is highly encouraged to get your tutor to check your type definitions before proceeding.

Please refer to the readings for information on type annotations. The Typescript online documentation is also a good source.