BE 2 Exercises

Goals

- Download and install Node.js
- Getting familiar with Node.js
- Getting familiar with node's main modules
- The ability to import and export modules
- Experimenting with Node's process, file system, events, timing functions

Exercise 1 (Install Node JS)(Skip if Done)

- Go to https://nodejs.org/en, and install node on your machine
- After you are done type in ***node -v*** to make sure your version
- Also check npm version using ***npm -v***

Exercise 2 (File System)

Create a Node.js program that reads a directory's contents, filters for specific file extensions, and copies them to a new directory. Your program should:

- Accept two command-line arguments: the source directory path and the target directory path.
- Read the contents of the source directory using **fs.readdir**.
- Filter for files with specific extensions (e.g., **.txt**, **.jpg**).
- Copy the filtered files to the target directory while preserving their original names.

Exercise 3 (Chatbot)

Create a Node.js program that acts as a simple chatbot, responding to user input and providing predefined responses. In particular:

1. Implement a chatbot program that accepts user input via standard input (stdin) and responds to it.
2. Predefine a set of questions and answers for the chatbot to use.

3. The chatbot should continuously prompt the user for input and respond with an appropriate answer based on the predefined questions.
4. The chatbot should terminate gracefully when the user enters a specific exit command (e.g., "exit" or "quit").

Exercise 4 (Events)

Build a Node.js application that simulates a simple event emitter system. Your program should:

1. Create a custom event emitter module that listens for “userLoggedIn” & “userLoggedOut” Event
2. Implement a main program that uses this custom event emitter to demonstrate the event handling capabilities.
3. Make your program simulate users logging in every random number of seconds (0.1 to 2), when the event is called log “TIMESTAMP: USER_X logged in”