Lab: EcmaScript 201X & Babel

In this lab you will solve a number of EcmaScript exercises. If time permits you can also solve the bonus exercises.

Good luck!

Visual Studio Code

Start with the "empty" application lab, which you'll find in the Start folder. Open the Start folder with Visual Studio Code (not a parent folder, to avoid problems later).

Familiarise yourself with what is in the project.

NPM: package.json

In the project you'll find a package.json file. This file contains:

- dependencies: Libraries that will be used at runtime
- devDependencies: Libraries and tools that will be used at development time
- scripts: Executable code that can be run by typing "npm run <name-of-script>" in the command line.
- Other fields like name, description, version, etc.

We only need to install all the dependencies:

1. Open the console in the folder where package.json is located.
2. Type and run 'npm install' in the console.
   A 'node_modules' folder will appear, where you can find all the dependencies.

Side-note: Recreate package.json

The package.json was generated by the following steps. If you would remove package.json, you can recreate it by executing these steps.

1. Run 'npm init' in the console and follow the instructions. To accept the default suggestion, type enter.
   The result will be a package.json without scripts and dependencies.
2. Install babel: In the console, run 'npm install babel-cli babel-preset-env babel-polyfill --save-dev'
   This will install the files in the 'node_modules' folder and add them as development dependencies to the package.json
   In case you want to install the files again and you have a correct package.json, just run 'npm install'.

3. Install expect: In the console, run 'npm install expect --save'
   This will install the files in the 'node_modules' folder and add them as runtime dependencies to the package.json

4. Add the following scripts:

```
"scripts": {
  "build": "babel ./src/lab.js --presets env --out-file ./lib/test.js",
  "test": "node ./lib/test.js",
  "build-test": "npm run build && npm run test"
}
```

Compile and execute the code

To compile and execute the code in 'lab.js', type and run (in the console) 'npm run build-test'. This is a combined action which is the same as first running 'npm run build' and next running 'npm run test'.

If things are going well, you will see the number of succeeded tests on the last line, but...

You will see an error because we have to solve the exercise first. See the next paragraph.

Solving exercises

The exercises are in this file and are commented out functions that will execute immediately.

Comment out one function and make it compile and run successfully.

There is always a comment explaining the exercise.

The comment is generally before the beginning, otherwise before the line that should be changed.

Important: Never adjust the lines below the "Don't make changes below this line." line.

Enjoy!