MEALS ON WHEELS

TECHNICAL REPORT

*SEMESTER 1, 2018*

The Meals on Wheels program is a web application, using two main frameworks to render the content. These are namely node.js and pug.js. Node.js is a Javascript environment where routes and scripts can be run on the server-side. Pug.js is a template engine used to display the content, and is similar to HTML, just in a different syntax.

A database running the MySQL database management system manages the stored data and distributes it accordingly throughout the website. There is a bunch of other associated middleware and dependencies however, which without them the application would not run. All of these are contained in a file named package.json, which can be found at the app folder level (where the app.js file resides).

An overview of the middleware and dependencies are listed below, with a short description about them. All of these can be installed by simply running the **npm install** command. Note that the “Dependencies” table is where dependencies are required at runtime, such as Express, are stored. The “devDependencies” table is where dependencies which are only required during development, such as testing frameworks, are stored. This is as represented in the package.json file as well.

**“Dependencies” section**

|  |  |  |
| --- | --- | --- |
| **Name** | **Version** | **Description** |
| async | ^2.5.0 | Provides asynchronous functions for reading in files |
| body-parser | ~1.17.1 | Handles POST requests from user input submitted via forms, allowing the data to be accessed. |
| cookie-parser | ~1.4.3 | Passes cookie header data around. |
| debug | ~2.6.3 | A small Javascript debugging utility for printing out helpful metadata, e.g. the seconds it took for the response to execute |
| express | ~4.15.2 | A web framework for node.js, which provides additional functionality, while integrating with other dependencies such as pug |
| fast-csv | ^2.4.1 | Provides CSV file parsing and formatting for file reading |
| moment | ^2.18.1 | Formats date outputs in a customisable way |
| morgan | ~1.8.1 | Outputs more useful logs |
| node-dev | ^3.1.3 | Automatically reloads the webpage whenever a change is detected, enhancing productivity time |
| node-mysql | ^0.4.2 | Enhancement to the existing MySQL library to make database usage easier |
| pikaday | ^1.6.1 | Javascript datepicker, with modular CSS for styling |
| pug | ~2.0.0-beta11 | Template engine to render a view into HTML |
| serve-favicon | 2.4.2 | Provides the ability to serve a favicon |
| express-session | ^1.15.6 | Provides the ability to maintain an active authenticated session on the server, essentially meaning the user is logged in |
| express-validator | ~5.2.0 | Prevents XSS attacks as part of security |

**“devDependencies” section**

|  |  |  |
| --- | --- | --- |
| **Name** | **Version** | **Description** |
| chai | ^3.5.0 | Provides a testing framework to assert that unit tests are working |
| cheerio | ^0.19.0 | Allows us to select certain HTML form elements, via hooks such as ids, classes and other attributes |
| istanbul | ^0.4.5 | Code coverage tool to show how many tests actually reach the code overall |
| mocha | ^5.2.0 | Testing framework specifically designed for asynchronous Javascript |
| rewire | ^2.5.2 | Allows injection of customisable data for testing purposes |
| sinon | ^5.1.0 | Provides test spies for Javascript to simulate a fake interface |
| supertest | ^1.2.0 | Tests server responses, e.g. a 200 HTTP reply |