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Puzzle Generator User manual

Team Prometheus

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1 Server setup

1.1 Prerequisites

Ensure that you have the following installed on your system.

1. NodeJS version 12.0+
2. npm version 4.0+
3. PostgreSQL

1.2 Installation on localhost

In order to use the server and load files to be hosted on the website the following needs to be done:

1. Open terminal to the directory which you had cloned/ downloaded the source code from the Puzzle-Generator GIT
2. Enter the following command to install dependencies: **npm install**

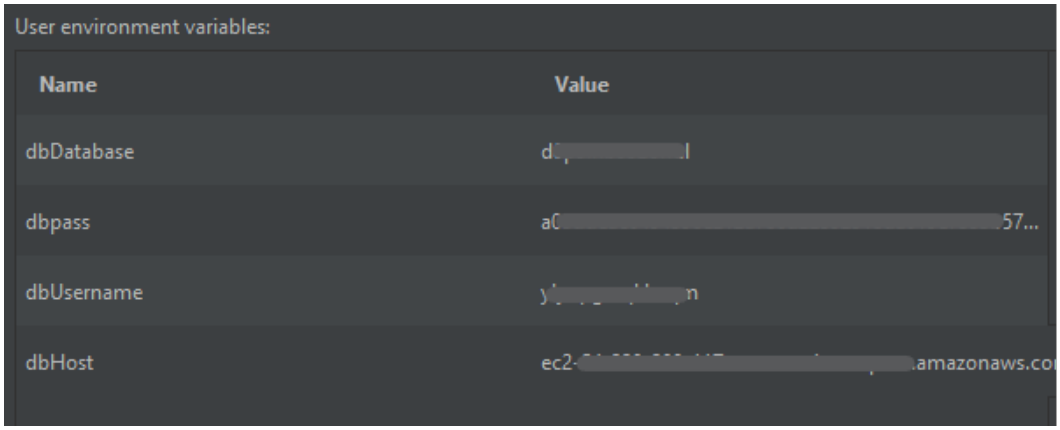
```
C:\Users\                                                    \GIT\Puzzle-Generator>npm install
npm WARN deprecated @angular/http@7.2.16: Package no longer supported. Use @angular/common instead, see https://angular.io/
npm WARN deprecated core-js@2.6.11: core-js@<3 is no longer maintained and not recommended for usage due to the number of i
```

3. Once the dependencies have been downloaded and installed, a post installation task will automatically be run inorder to build the relevant Angular files which reside in the subdirectory **/src** and output the built application in the directory /dist.

```
> ng build --output-path dist
Generating ES5 bundles for differential loading...
ES5 bundle generation complete.
chunk {polyfills} polyfills-es2015.js, polyfills-es2015.js.map (polyfills) 141 kB [initial] [rendered]
chunk {polyfills-es5} polyfills-es5.js, polyfills-es5.js.map (polyfills-es5) 752 kB [initial] [rendered]
chunk {main} main-es2015.js, main-es2015.js.map (main) 156 kB [initial] [rendered]
chunk {main} main-es5.js, main-es5.js.map (main) 170 kB [initial] [rendered]
chunk {runtime} runtime-es2015.js, runtime-es2015.js.map (runtime) 6.16 kB [entry] [rendered]
chunk {runtime} runtime-es5.js, runtime-es5.js.map (runtime) 6.16 kB [entry] [rendered]
chunk {styles} styles-es2015.js, styles-es2015.js.map (styles) 156 kB [initial] [rendered]
chunk {styles} styles-es5.js, styles-es5.js.map (styles) 158 kB [initial] [rendered]
chunk {vendor} vendor-es2015.js, vendor-es2015.js.map (vendor) 5.07 MB [initial] [rendered]
chunk {vendor} vendor-es5.js, vendor-es5.js.map (vendor) 5.92 MB [initial] [rendered]
Date: 2020-07-23T20:04:36.172Z - Hash: cf9cc37ce258023eb80a - Time: 60058ms
```

4. If a directory **/dist** is not created after calling the command npm install, you may use the command **npm postinstall** which will run the command **ng build –output=dist**.
5. In order for the system to run on your localhost, please indicate the following environment variables in order to connect to your postgres database:

- **dbDatabase** = databaseName,
- **dbpass** = database password,
- **dbUsername** = database username,
- **dbHost** = database host

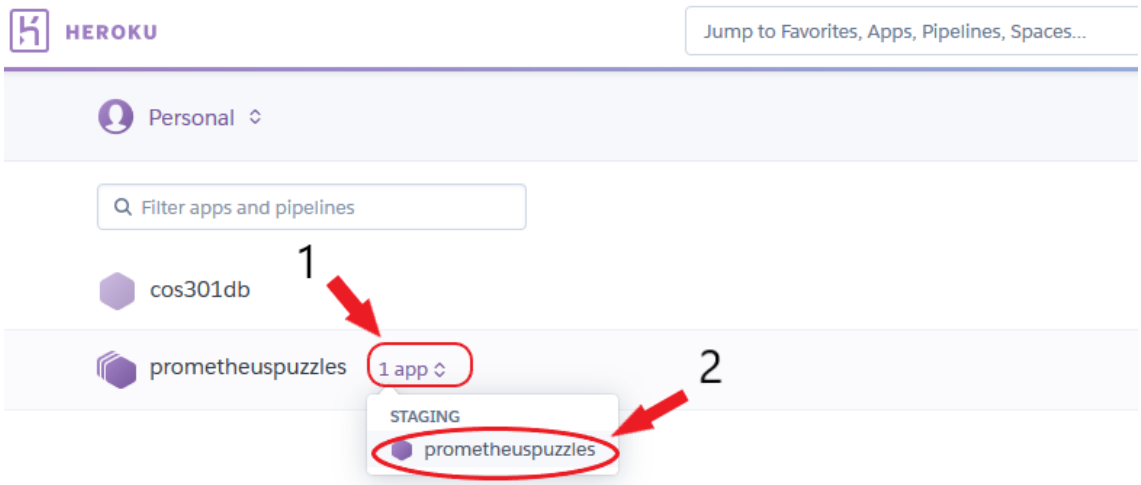


6. You are now ready to run the server.
7. To run the server enter the following command into your terminal in the root folder of your app: **npm start**.
8. You are now ready to access your server at **localhost:3200** in your browser.

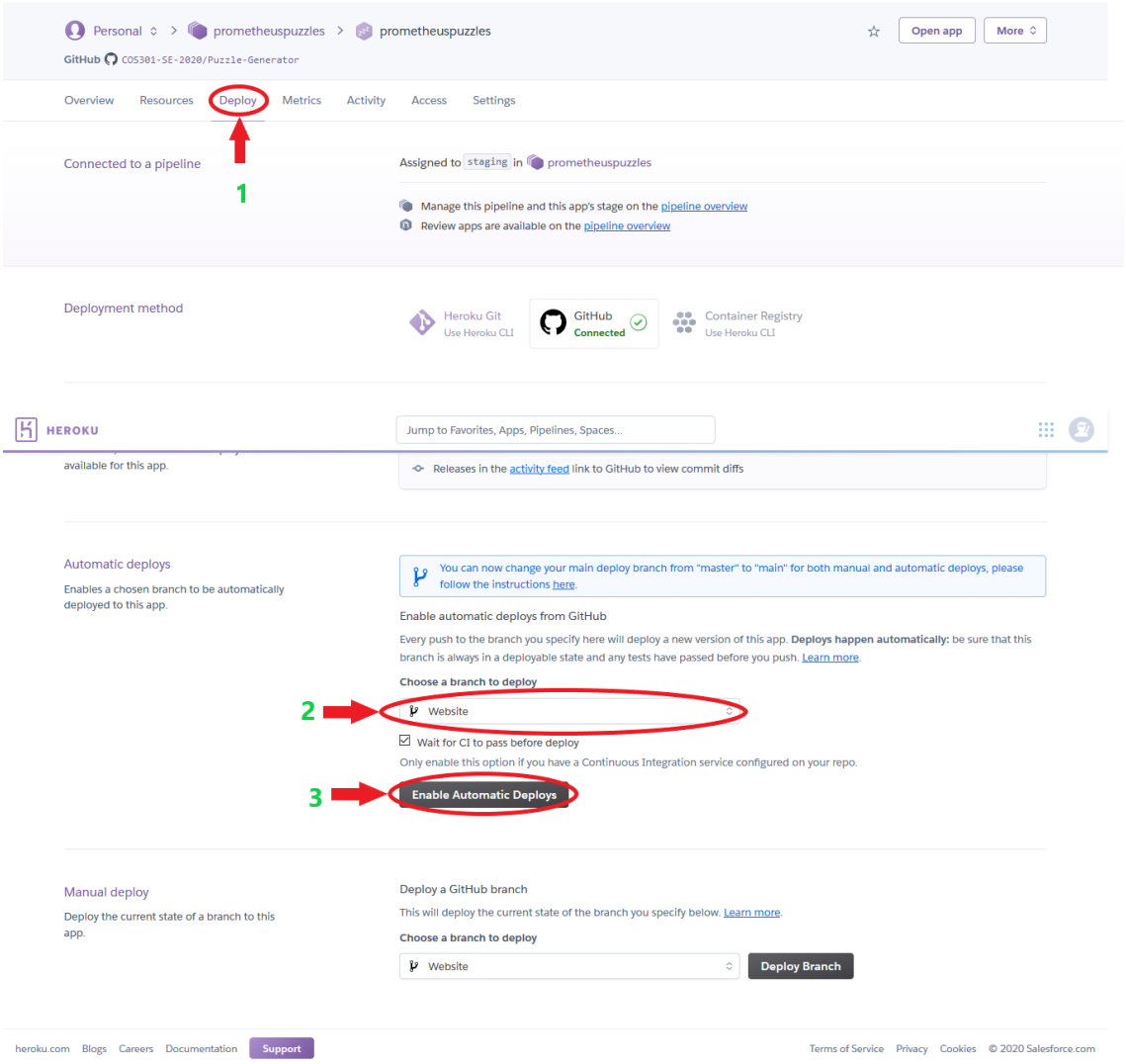
1.3 Deploying to Heroku

In order to deploy to Heroku, the following needs to be done:

- Sign into the Prometheuspuzzles Heroku app, by going to dashboard.heroku.com, and selecting **prometheuspuzzles**



- Select the Deploy tab and select a branch to deploy, after which select "Enable Automatic Deploys" to enable automatic deployment when you push to the selected branch.



1.4 Customizing your server

1. Changing server's default port
   If you wish to alter the default server port on localhost, you may do so by modifying the file:**/bin/www** and locating the variable **PORT**

1.5 Adding your web pages to be deployed

1. All additional web pages and subsequent CSS and JavaScript files intended for the use of the user should be placed in /src /src/app

2. In order to access the API the following routes are used:
    - /routes/user
    - /routes/puzzles
3. By default all links to the API (in the front end Angular files /src/app) will point you to the API hosted on Heroku.

2 Accessing the website

In order to access the website you can follow the following link: https://prometheuspuzzles.herokuapp.com/. From here you will be greeted with our homepage, where you have the options to login or sign up, or simply browse through the available puzzles to view.

2.1 Website features

2.1.1 Splash page

The splash page is used as a page where users can sign up or login.

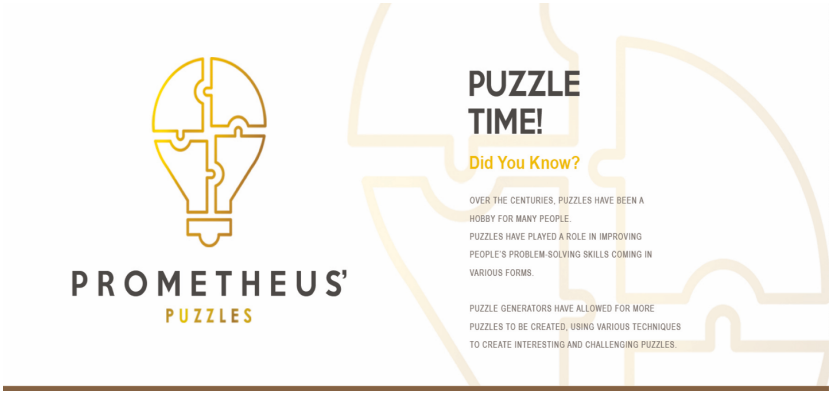


Figure 1: Splash Page - Part 1

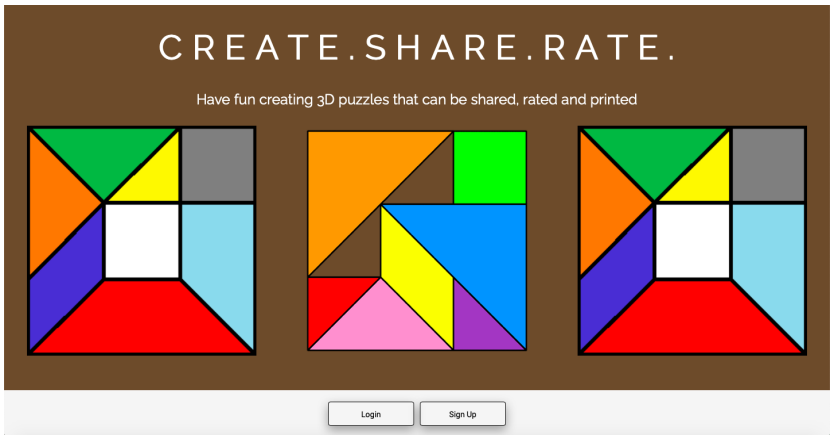


Figure 2: Splash Page - Part 2

2.1.2 Sign up

The user will be able to click on the sign up button on the splash page where they will be redirected to a sign up form. Once a user has signed up, they can log in using their personal details.

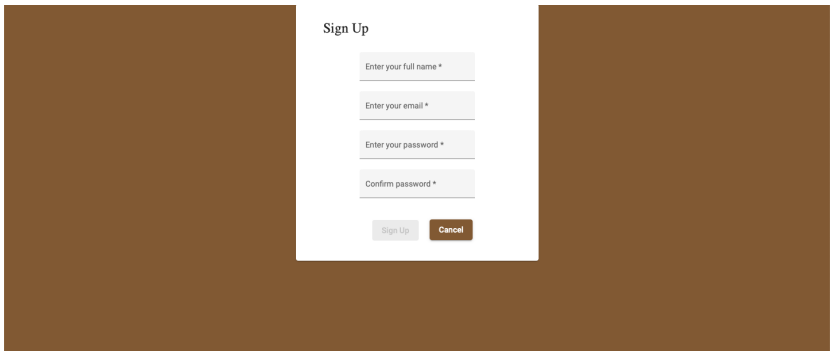


Figure 3: Sign Up

2.1.3 Login

The user can click on the login button on the splash which will redirect them to the login form. Once a user has logged in they can create, rate and view puzzles and also view their own profile page. On the login form the user can change their password if they forgot it.

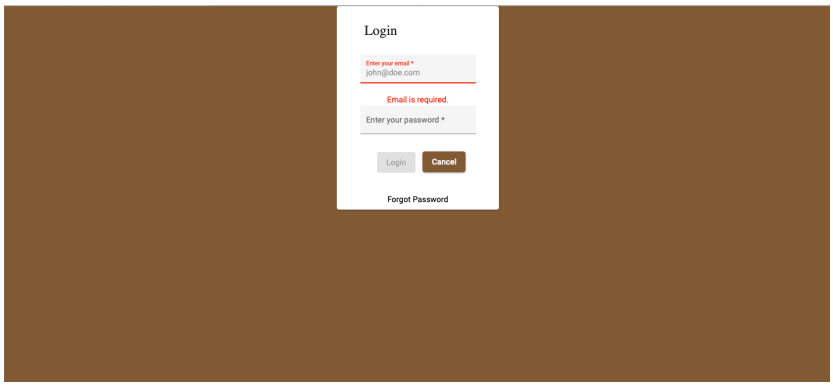


Figure 4: Login

2.1.4 View

The view page shows all created puzzles by other users that has been shared. By clicking on a specific puzzle, you can rate or solve the puzzle. At the top of the page there is a search bar to search for specific puzzles.

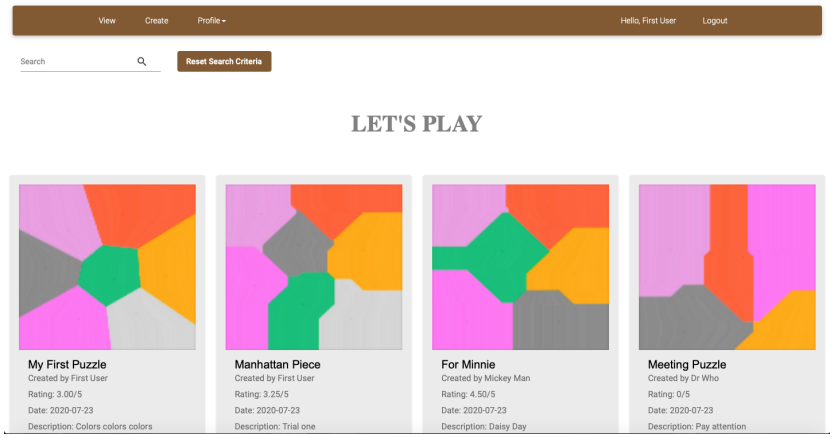


Figure 5: View page with search functionality

2.1.5 Rate

When a user clicks on the rate button on the view page there will be a popup form where the user can rate other users' puzzles.

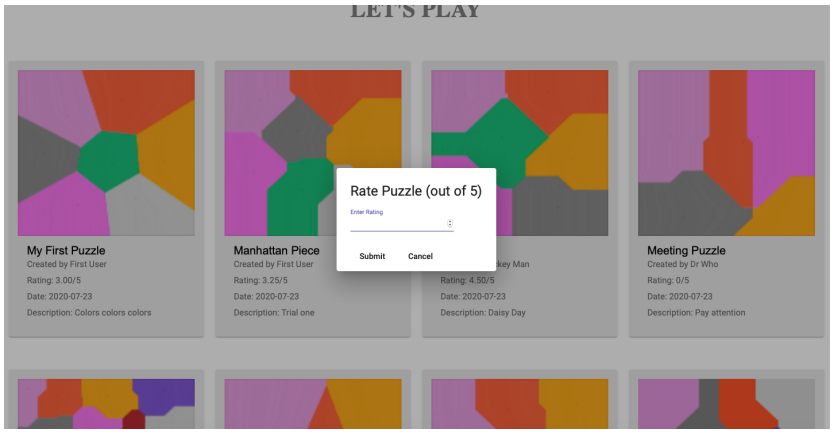


Figure 6: Rate pop-up form

2.1.6 Create

A logged in user can go to the create tab and start creating their own puzzle. They will be given a canvas with a square, when clicking on the square and then clicking the generate button the puzzle will be created. They can choose weather to use Euclidean algorithm or Manhattan algorithm. This provides the user with the means to create two different puzzles with the same points. The amount of times the user click on the square, is the amount of pieces the puzzle will have.

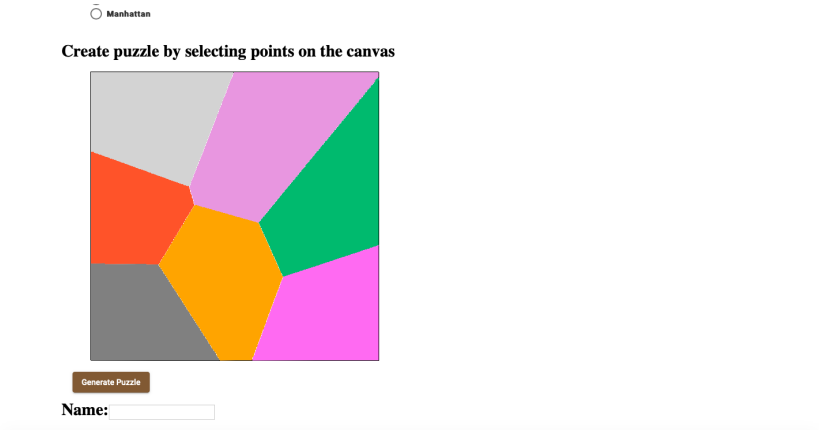


Figure 7: Create page after canvas clicked and generate clicked

2.1.7 Profile - Details

The profile details page gives the logged in user the opportunity to update their username and email address.

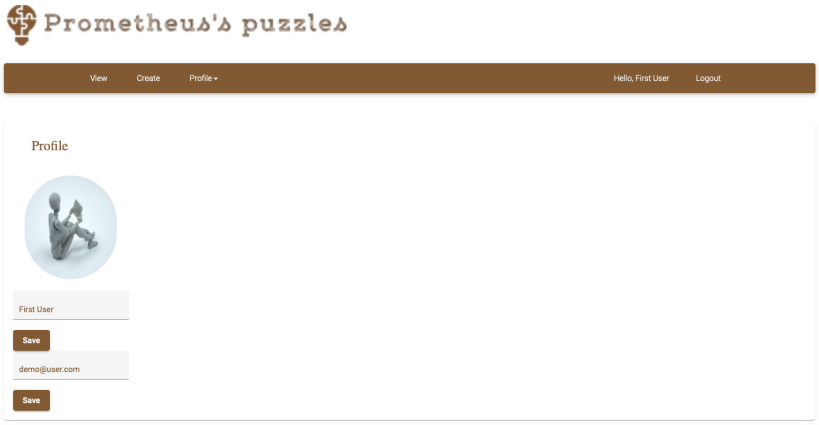


Figure 8: Profile page with details

2.1.8 Profile - Puzzles

The profile puzzles page shows all the puzzles that the user created. From here the user can share or stop sharing a puzzle.

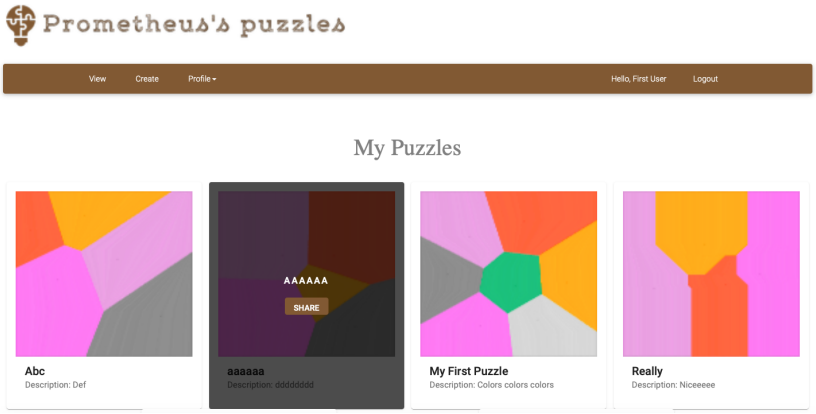


Figure 9: Profile page with own puzzles and share/stop sharing functionality

2.1.9 Profile - Ratings

The profile ratings page shows all the ratings that the user created. Here they can update the ratings that they made.

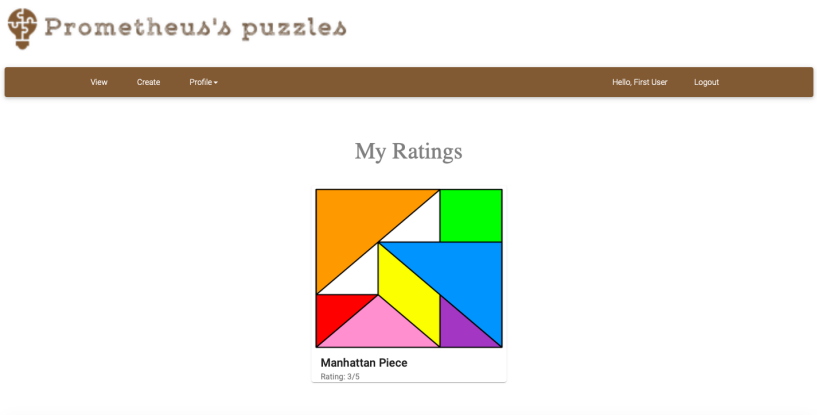


Figure 10: Profile page with own ratings