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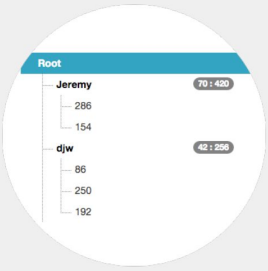
Passportinc.com

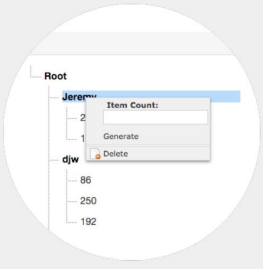
Full-Stack Web Programming Challenge

Demonstrate your knowledge of several technologies, including databases, backend design, and UI/UX by creating a live-updating tree view as a web application.

- The tree should contain a group of nodes, with a main (root) node that can have any number of ‘factories’.
- These factory nodes can in turn generate a set amount of random numbers (up to 15), represented as child nodes of their respective factories.
- Factories and children should be created through some means of user input (right click, button press, etc) specifying the number of children to generate (up to 15) and the ranges of those children.
- Factories should have an adjustable name assigned to them, be removable, and have an adjustable lower and upper bound for the random number generation.
- You may use any programming languages and front-end design styles of your choosing to create the project.



- All users should see any changes made to the tree immediately across browsers without refreshing or polling.
- The state of the tree should remain persistent; reloading should not undo any state.
- All of a factory’s existing child nodes should be removed upon each new generation.
- Your project should be secure, validate inputs, and protect against injections.
- Your project should be hosted on the web using a service such as Amazon AWS or Heroku to run your submission.
- The project should exhibit both a frontend and backend codebase built by you.
- Use a database on your backend, not Firebase.



This is your time to shine!!! **Please review all code before submitting.** Once complete please upload the link to your completed project and the GitHub repo using the link provided in the email.

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