**Home Electricity Simulator**

**Application Description**

This application will be designed to help model and simulate electricity usage in a home for designing smart-homes or general-purpose homes. This application's main goal is to enable users to model a home and determine optimal building materials and controller products based on the offline database that is partially pre-built from release. This application will allow users to add, edit, and delete products and materials within the database, allowing dynamic use of custom defined products.

**Application Functionality**

* Use user defined properties to simulate a model home with the applied materials and products.
* Enable the user to add, edit, or delete home materials and products from the default database.
* Allow the user to save active simulation properties.
* Allow the user to load saved simulations.
* Allow the user to export the simulation properties / data to a common file type.
* Light and dark mode options for the user interface.
* Produce a visual graph for user feedback from the simulation data.

**Idea UI Mockup**

