IoT Dashboard Project

IoT dashboard project created using MEAN stack.

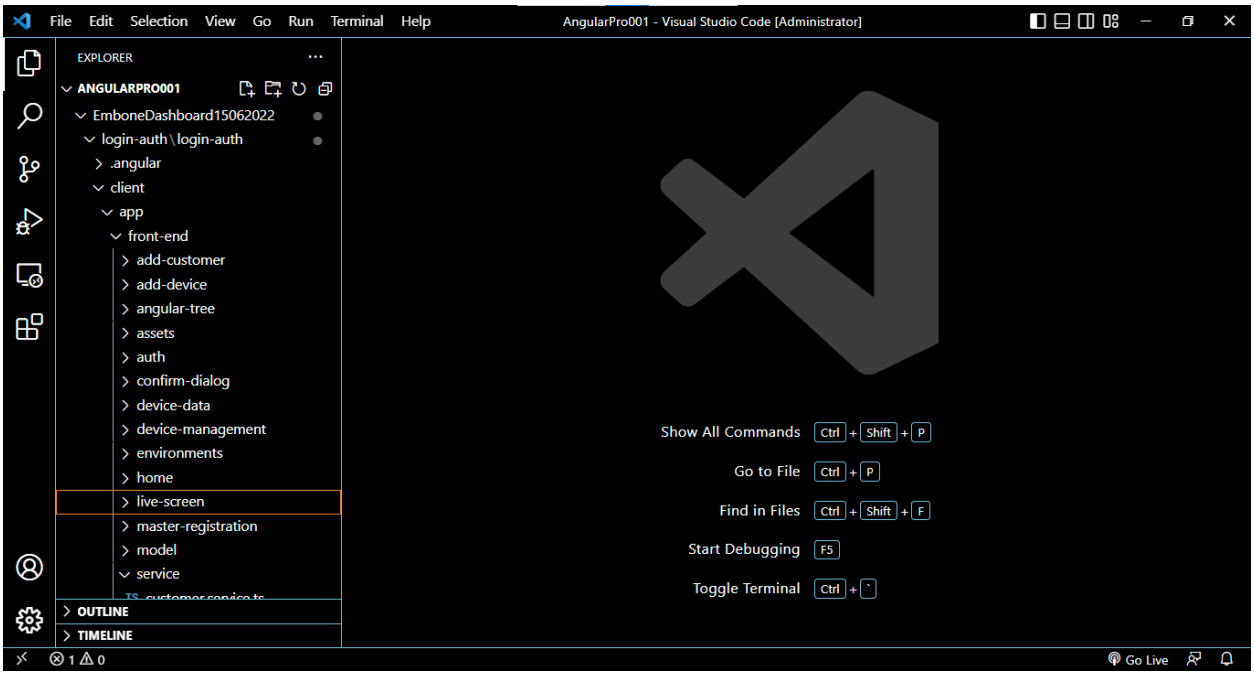
It is based on Angular. Command for adding component in angular :

ng g c component_name

command for adding service in angular :

ng g s service_name

Dashboard project Structure's Screenshot :



All components are in app folder.

All component names list :

In fornt end part component names -

addCustomer, addDevice, angularTree, assets, auth, confirmDialog, deviceData, deviceManagement, environment, home, liveScreen, masterRegistration, model, signIn, signUp, user, userProfile.

In services part services names -

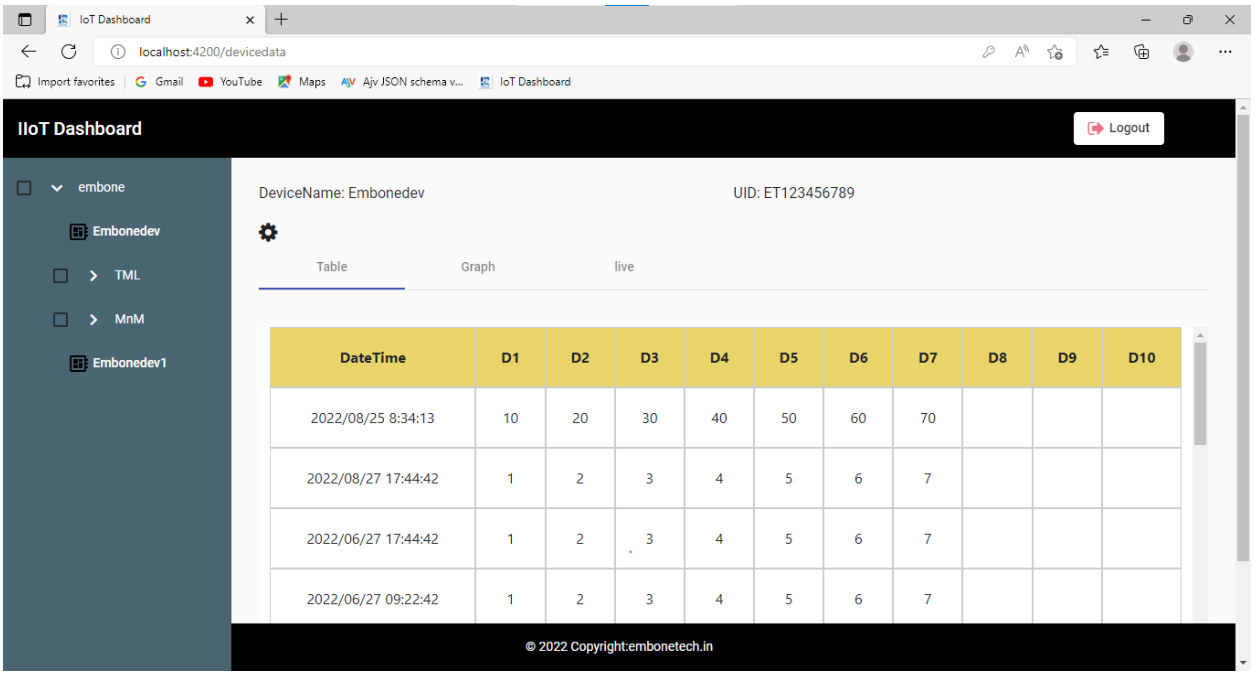
customerService, treeService, deviceManagementService, deviceDataService, liveScreenService.

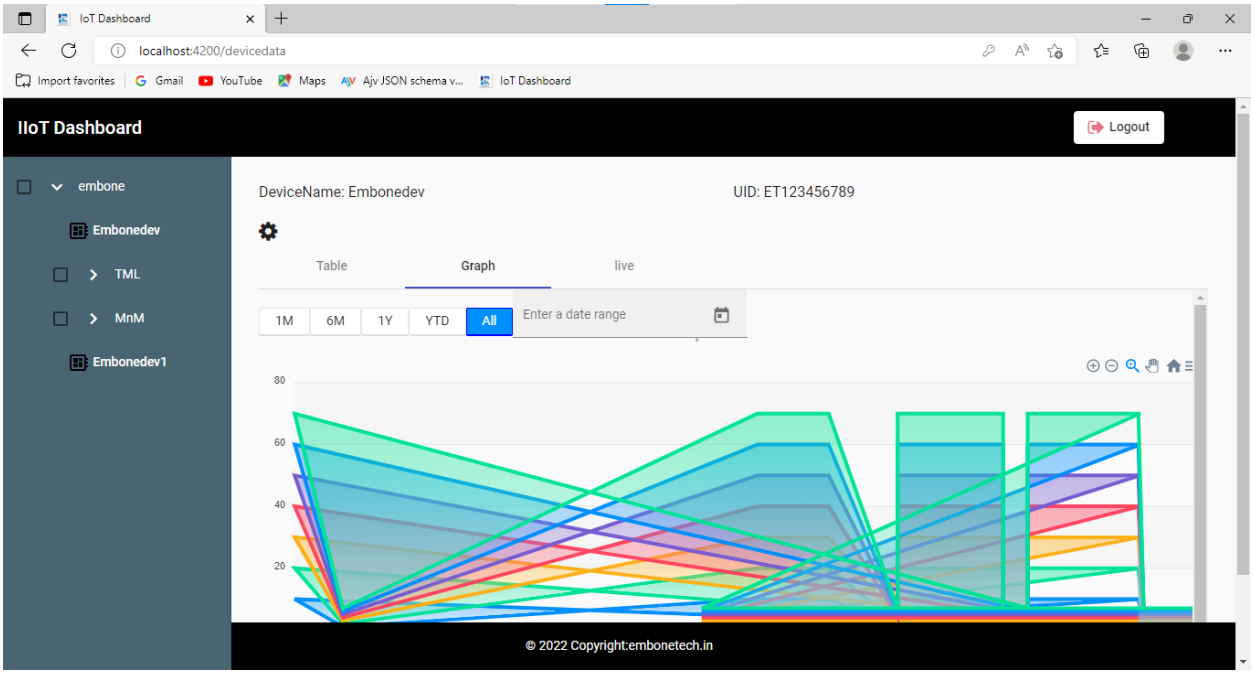
In backend part controller, models and routes are written.

Front End Portion –

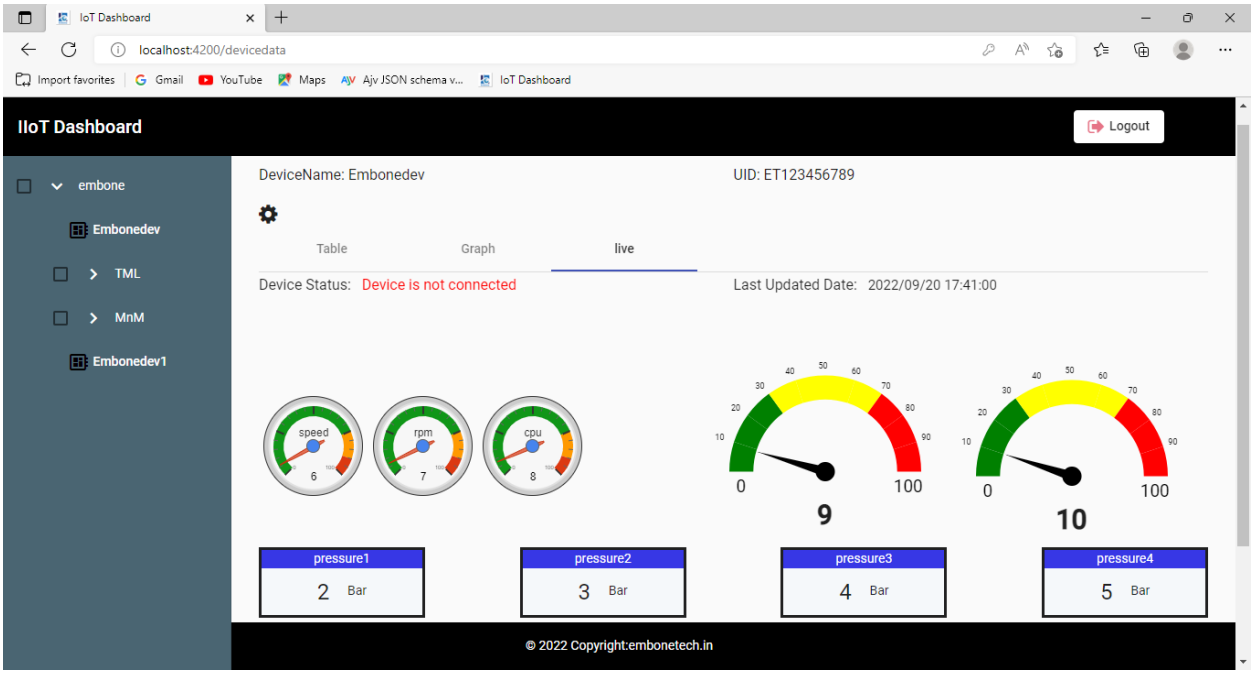
I have created deviceData, deviceManagement and liveScreen component. In devicedata component, table and graph is shown. In liveScreen component, real time data display shown. In devicemanagement component configuration table shown.

deviceData component's dashboard screenshot :

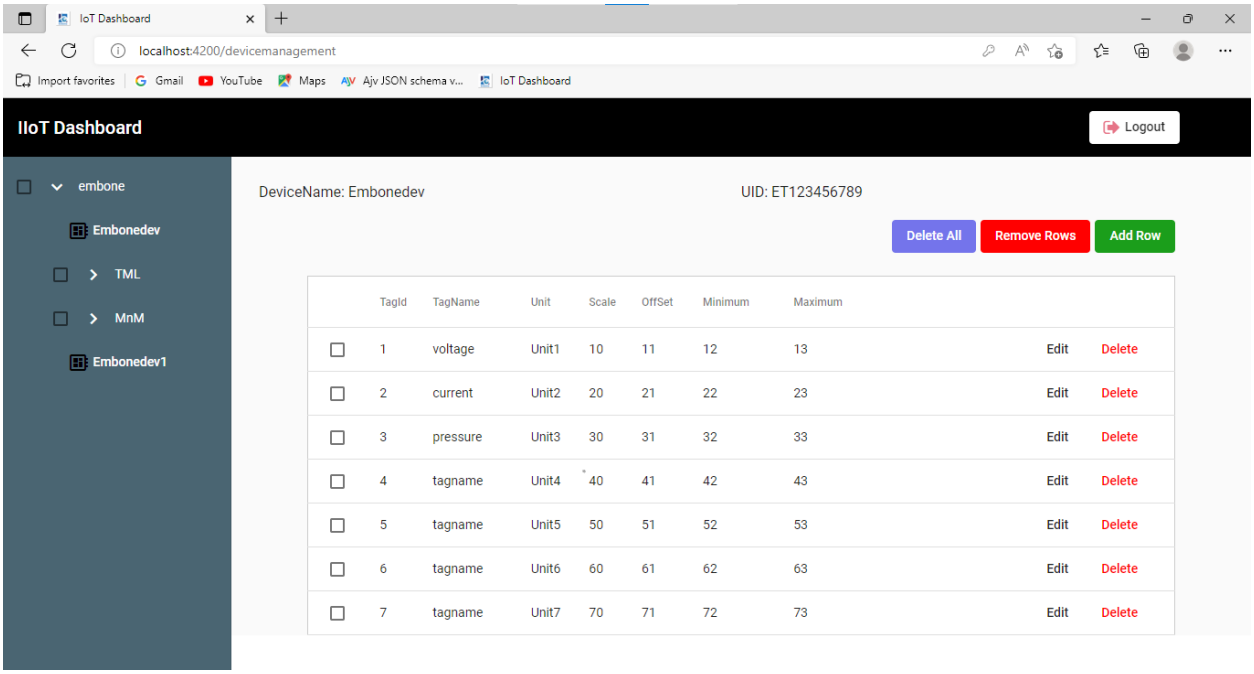




liveScreen component's dashboard screenshot :

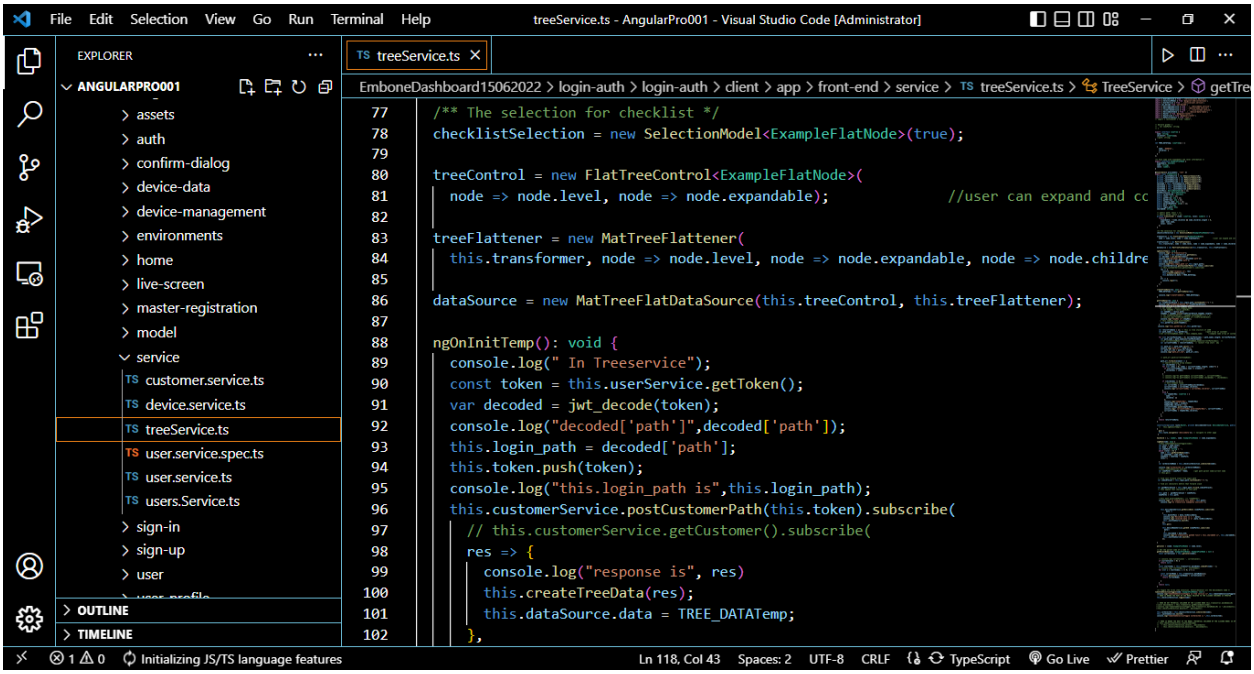


DeviceManagement component's dashboard screenshot :



All angular tree related services written in treeService.

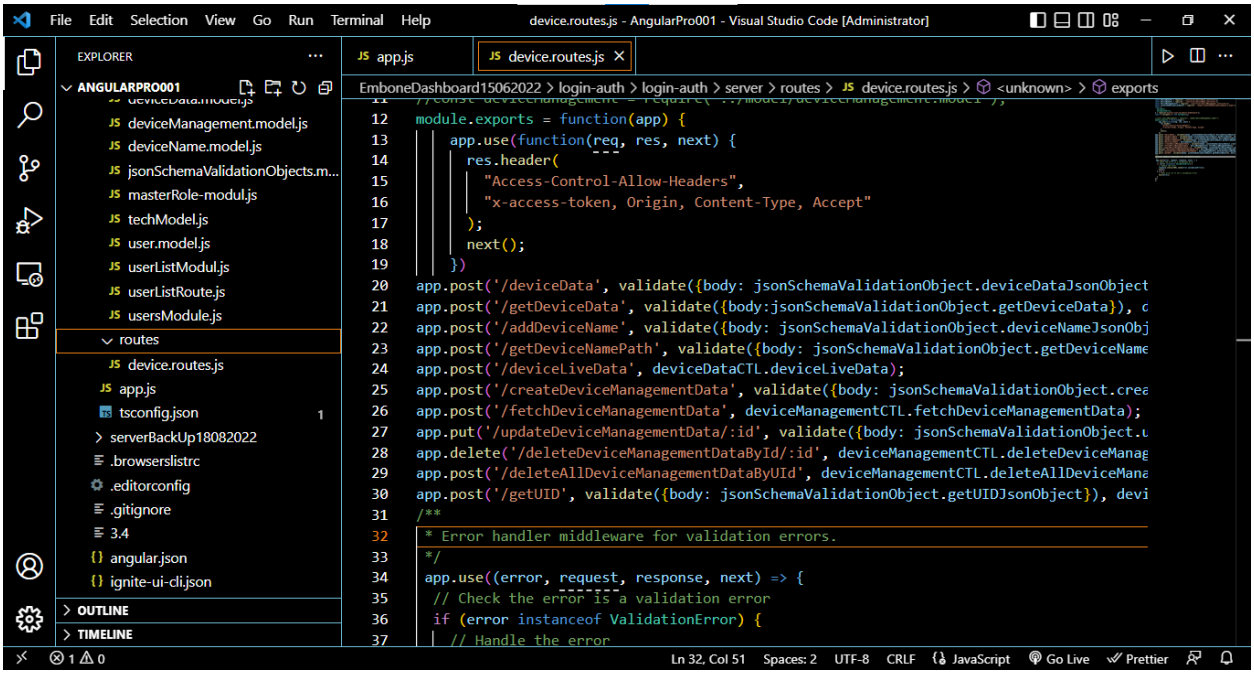
Treeservice code screenshot :



Back End Portion –

All backend files are written in javaScript language. Rest API'S are used to communicate between client and server. Rest API'S are written in device.routes.js file.

API'S code screenshot :



To run the front end portion use following command :

ng serve

To run the back end portion use following command :

node app.js

For Backup

For Updating Angular Version I have used below reference link

https://dalenguyen.medium.com/migrate-angular-v12-to-angular-v13-71ea3b0180b3

npx is used for locally installation of angular.

Available IoT Dashboard :

https://cumulocity.com/guides/users-guide/device-management/

https://relevant.software/cases/sensor-innovation/

https://relevant.software/cases/airthings/

https://www.airthings.com/dashboard

Readings:

https://lanars.com/blog/web-application-architecture-best-practices