Dashboard Builder - FarmStack (using React.js)

Contributor -Jhansi.S

- ## Why do I need it & what is its importance ?? (Briefly)

FarmStack is basically a data sharing platform. It enables data collaboration between smallholder farmers and governmental and non-governmental organisations.

Dashboard builder enables the users to analyse data by creating innovative & meaningful dashboards which help them to draw data driven knowledge of datasets very easily.

The Key role of the dashboard builder is to provide the detailed analysis of the datasets. So,with this objective,Dashboard builder is created using React.js in such a way that it is user-friendly and has enabled extensive visualisation options.

● Set up -

- Fork & Clone the repository to your local machine

Git bash : git clone https://github.com/digitalgreenorg/farmstack-frontend

1. Navigate to the project directory:

bash : cd farmstack-react-app

Install the required dependencies using npm:
bash : npm install

Configuration The FarmStack React App requires some environment variables to be set in order to function properly. These variables are used to configure the app's behaviour and access external services. Follow the steps below to set up the environment variables:

1. Create a .env file in the root directory of the project.
2. Open the .env file and add the following variables:

Copy code :

```
REACT_APP_BASEURL="https://datahubethdev.farmstack.co/be/"
REACT_APP_BASEURL_without_slash="https://datahubethdev.farmstack.co/be"
REACT_APP_BASEURL_without_slash_view_data="http://datahubethdev.farmstack.co:"
REACT_APP_DEV_MODE="true"
```

Make sure to replace the values with the appropriate URLs and settings for your environment.

Usage To start the FarmStack React App, run the following command:

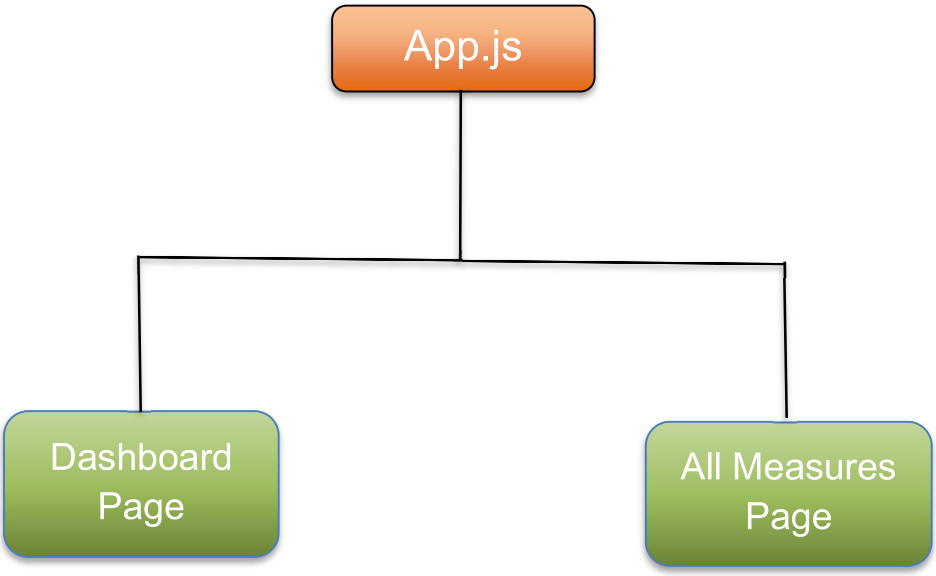
bash : npm start

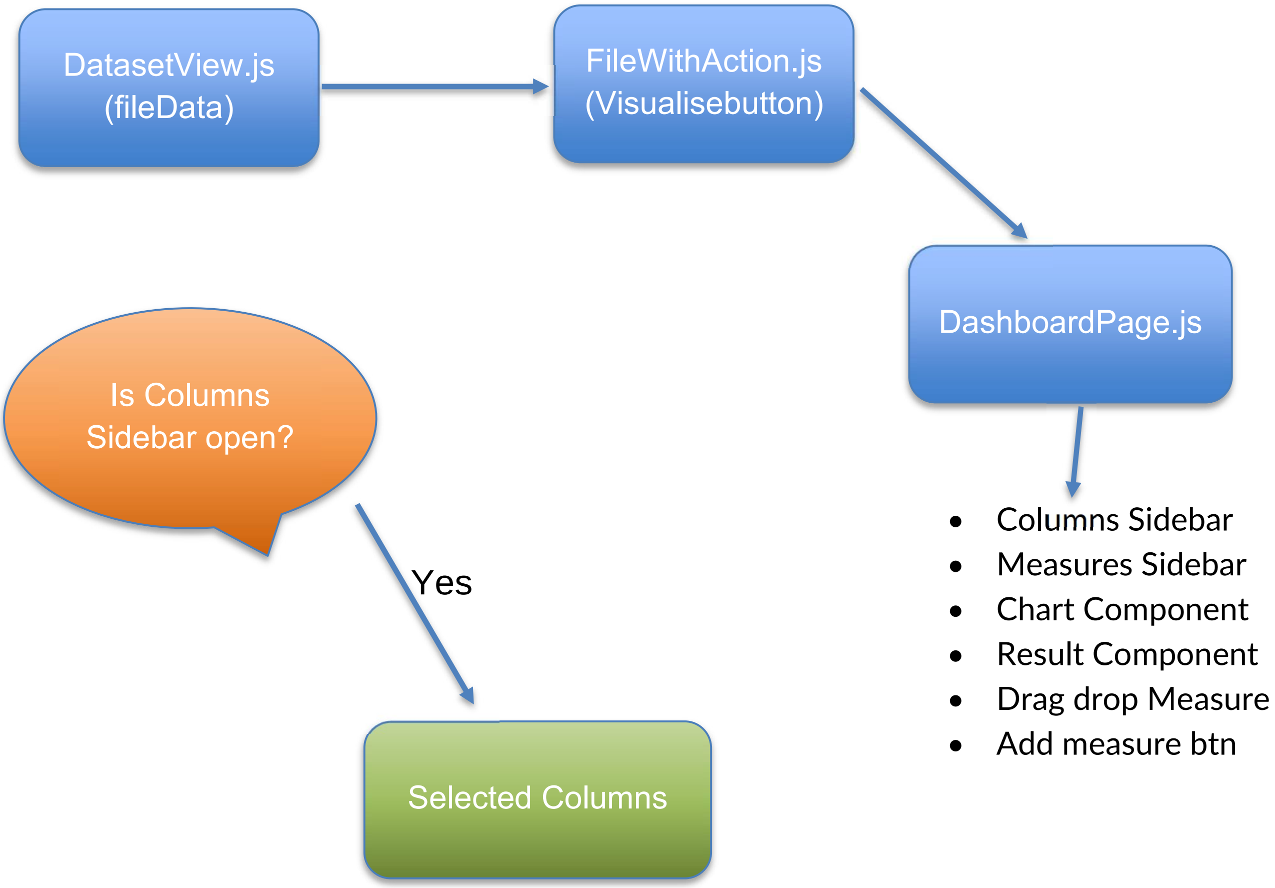
This command will build the app and start a local development server. Open your browser and visit http://localhost:3000 to access the application.

- ## Code Structure

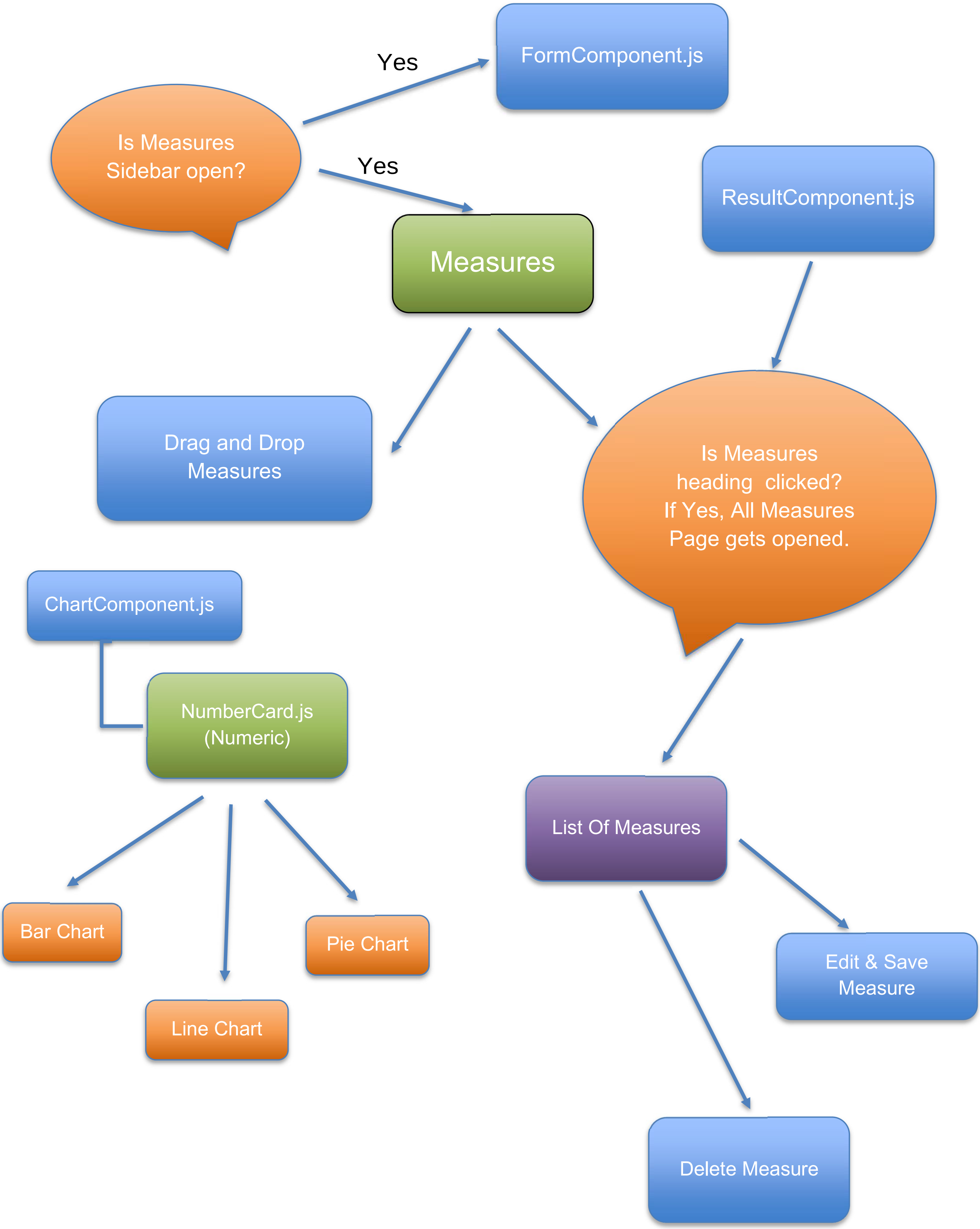
1)Extraction of File data - I have passed filedata through props via a visualise button which redirects me in to the dashboard page.
2)Dashboard Page - It gets measures,editedsum and handlemeasureclick props from app.js where its routing is defined. Columns sidebar , measures sidebar , add measure button and drag measures area are majorly displayed .
3)Creation of Measures - The columns from filedata are extracted and displayed in the columns sidebar which can be selected by user. Now after selecting columns,the user have to click on add measure button.
A form is opened with some input fields that will be filled by user. The states of form page are maintained in its parent i.e, dashboardpage and they are passed as props to form component. Here the user can add as many conditions as he want & clicks on create measure button.These get added to measures Sidebar.
4)All Measures Page – It consists of list of measures.It is getting edited sum,delete measures,measures props from app.js. where its routing is defined.
The user can edit measures.Arrays are used to store the edited attribute specific to a measure.Even,edited sum is initiated with a empty object to be measure specific when edited & saved.
handle delete measure is maintained in app.js.
5)Drag and drop Measure- I have been maintaining the state of draggedmeasure index in dashboardpage and passing it to chart component to create bar charts,pie charts,line charts using react-chartjs-2 library.Apart from these, For Number metric I have added number card.js where state of the Numeric is maintained and displayed.Also edited changes get reflected here.

(Measures,Editedsum,handleMeasureClick,handleDelete) These are defined in app.js and passed as props to dashboardpage.js and allmeasurespage.js.So two routes I have in app.js.




DatasetView.js (fileData)
FileWithAction.js (Visualisebutton)
DashboardPage.js
Is Columns Sidebar open?
Yes
Selected Columns

- Columns Sidebar
- Measures Sidebar
- Chart Component
- Result Component
- Drag drop Measure
- Add measure btn


Is Measures Sidebar open?
Yes
FormComponent.js
Yes
Measures
ResultComponent.js
Drag and Drop Measures
Is Measures heading clicked? If Yes, All Measures Page gets opened.
ChartComponent.js
NumberCard.js (Numeric)
List Of Measures
Bar Chart
Pie Chart
Line Chart
Edit & Save Measure
Delete Measure