Working with Fusion Charts in ReactJS

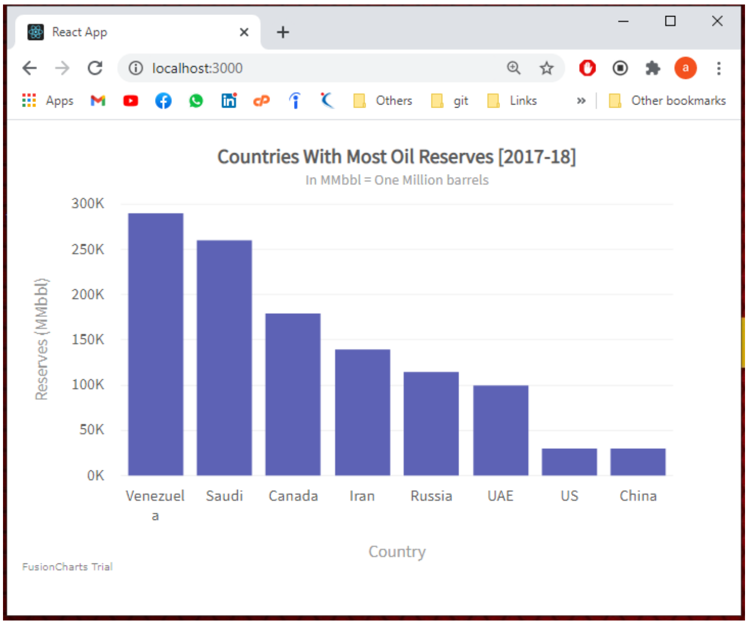
- FusionCharts is a JavaScript charting library that enables you to create interactive charts, gauges, maps and dashboards in JavaScript.
- It has built a simple and lightweight React component that provides bindings for FusionCharts.
- The **react-fusioncharts** component allows you to easily add rich and interactive charts to any React project.

Reference:
https://www.fusioncharts.com/react-charts?framework=react

Installation of Fusion Charts:
npm install fusioncharts react-fusioncharts –save

```
hello-app>npm install fusioncharts react-fusioncharts --save
```

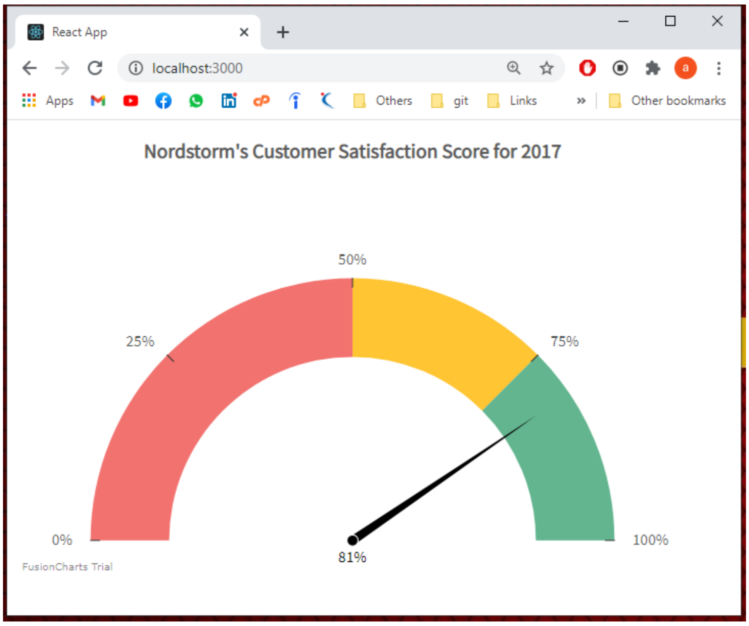
Eg: Charts



index.js

```
import React, { Component } from "react";
import ReactDOM from "react-dom";
import FusionCharts from "fusioncharts";
import Charts from "fusioncharts/fusioncharts.charts";
import ReactFC from "react-fusioncharts";
import FusionTheme from "fusioncharts/themes/fusioncharts.theme.fusion";

ReactFC.fcRoot(FusionCharts, Charts, FusionTheme);

const chartConfigs = {
  type: "column2d",
  width: 600,
  height: 400,
  dataFormat: "json",
  dataSource: {
    chart: {
      caption: "Countries With Most Oil Reserves [2017-18]",
      subCaption: "In MMbbl = One Million barrels",
      xAxisName: "Country",
      yAxisName: "Reserves (MMbbl)",
      numberSuffix: "K",
      theme: "fusion",
    },
    data: [
      {
        label: "Venezuela",
        value: "290",
      },
      {
        label: "Saudi",
        value: "260",
      },
      {
        label: "Canada",
        value: "180",
      },
      {
        label: "Iran",
        value: "140",
      },
      {
        label: "Russia",
        value: "115",
      },
      {
        label: "UAE",
        value: "100",
      },
      {
        label: "US",
        value: "30",
      },
      {
        label: "China",
        value: "30",
      },
    ],
  },
};

class Chart extends Component {
  render() {
    return <ReactFC {...chartConfigs} />;
  }
}

ReactDOM.render(<Chart />, document.getElementById("root"));
```

Eg: Guage



```
import React, { Component } from 'react';
import ReactDOM from 'react-dom';
import FusionCharts from 'fusioncharts';
import Widgets from 'fusioncharts/fusioncharts.widgets';
import ReactFC from 'react-fusioncharts';
import FusionTheme from 'fusioncharts/themes/fusioncharts.theme.fusion';

ReactFC.fcRoot(FusionCharts, Widgets, FusionTheme);

const chartConfigs = {
  type: 'angulargauge',
  width: 600,
  height: 400,
  dataFormat: 'json',
  dataSource: {
    "chart": {
      "caption": "Nordstorm's Customer Satisfaction Score for 2017",
      "lowerLimit": "0",
      "upperLimit": "100",
      "showValue": "1",
      "numberSuffix": "%",
      "theme": "fusion",
      "showToolTip": "0"
    },
    "colorRange": {
      "color": [
        {
          "minValue": "0",
          "maxValue": "50",
          "code": "#F2726F"
        },
        {
          "minValue": "50",
          "maxValue": "75",
          "code": "#FFC533"
        },
        {
          "minValue": "75",
          "maxValue": "100",
          "code": "#62B58F"
        }
      ]
    },
    "dials": {
      "dial": [
        {
          "value": "81"
        }
      ]
    }
  }
};

class Chart extends Component {
  render () {
    return <ReactFC {...chartConfigs} />;
  }
}

ReactDOM.render(
  <Chart />,
  document.getElementById('root'),
);
```

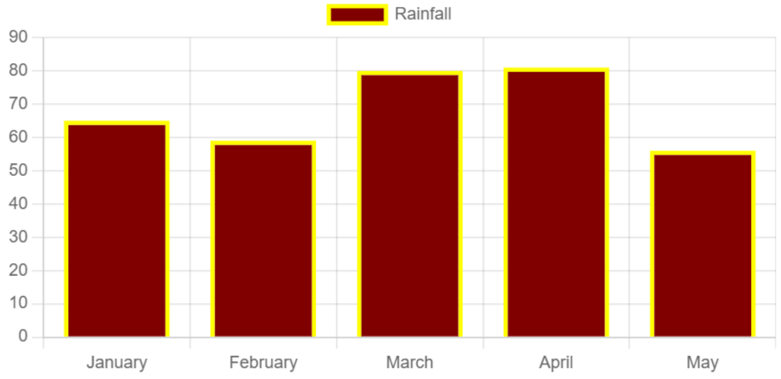
Working with Chart.js and react-chart.js

- **React-chartjs-2** is a wrapper for **Chartjs** an already well developed JS library that has all the essential charts and more.

Installation:

hello-app>npm install --save react-chartjs-2 chart.js

Example: Bar Chart



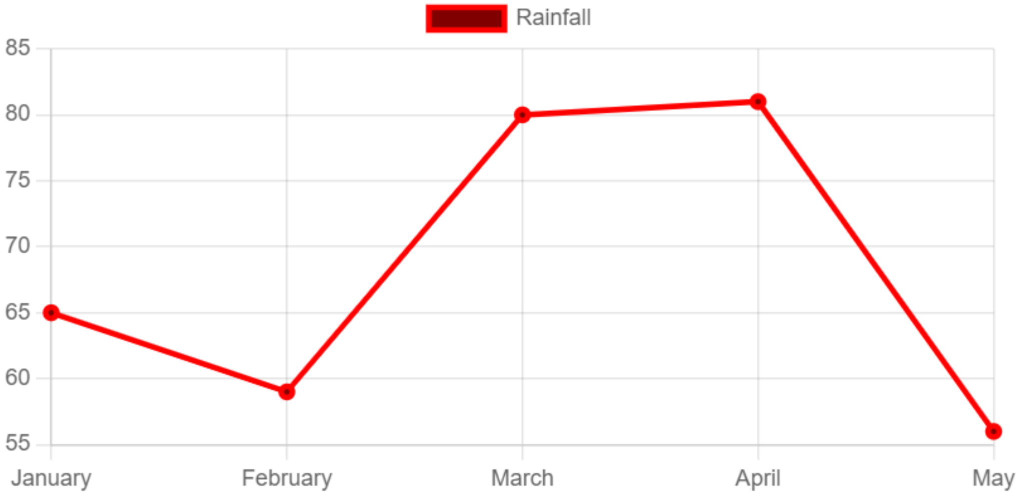
hello-app\src\charts\BarChart.js

```
import React from "react";
import { Bar } from "react-chartjs-2";
import Container from "react-bootstrap/Container";
import Row from "react-bootstrap/Row";
import Col from "react-bootstrap/Col";

const state = {
  labels: ["January", "February", "March", "April", "May"],
  datasets: [
    {
      label: "Rainfall",
      backgroundColor: "maroon",
      borderColor: "yellow",
      borderWidth: 3,
      data: [65, 59, 80, 81, 56],
    },
  ],
};

export default function BarChart() {
  return (
    <div>
      <Container>
        <Row className="justify-content-md-center">
          <Col lg={6}>
            <Bar data={state} />
          </Col>
        </Row>
      </Container>
    </div>
  );
}
```

hello-app\src\index.js

```
import React from "react";
import ReactDOM from "react-dom";
import BarChart from "./charts/BarChart";

ReactDOM.render(<BarChart />, document.getElementById("root"));
```

Example: Line Chart.



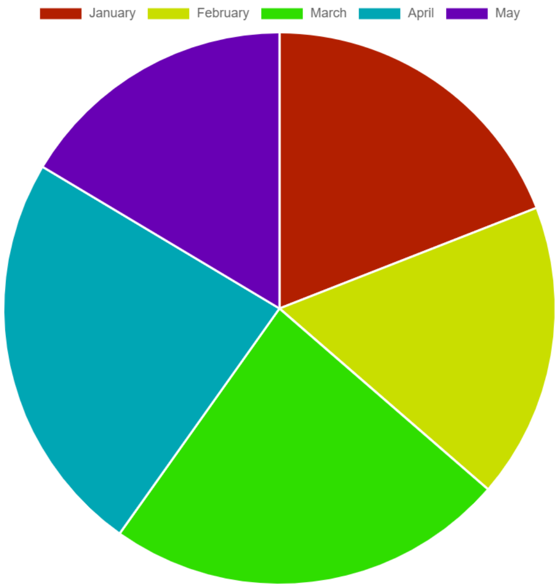
hello-app\src\charts\LineChart.js

```
import React from "react";
import { Line } from "react-chartjs-2";
import Container from "react-bootstrap/Container";
import Row from "react-bootstrap/Row";
import Col from "react-bootstrap/Col";

const state = {
  labels: ["January", "February", "March", "April", "May"],
  datasets: [
    {
      label: "Rainfall",
      backgroundColor: "maroon",
      borderColor: "red",
      borderWidth: 3,
      data: [65, 59, 80, 81, 56],
    },
  ],
};

export default function LineChart() {
  return (
    <div>
      <Container>
        <Row className="justify-content-md-center">
          <Col lg={6}>
            <Line data={state} />
          </Col>
        </Row>
      </Container>
    </div>
  );
}
```

hello-app\src\index.js

```
import React from "react";
import ReactDOM from "react-dom";
import LineChart from "./charts/LineChart";

ReactDOM.render(<LineChart />, document.getElementById("root"));
```

Example: Pie Chart



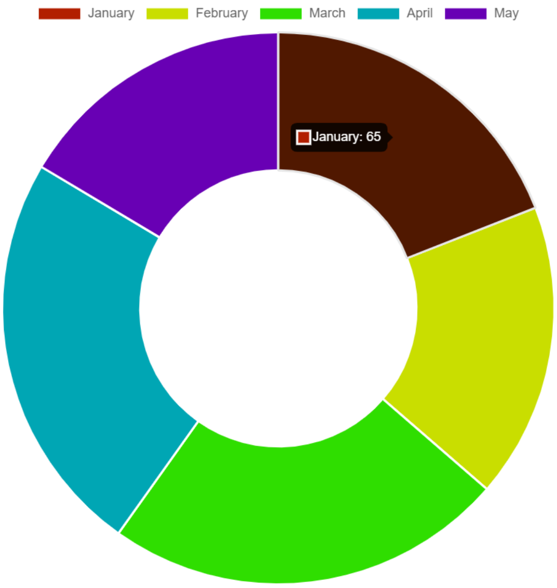
hello-app\src\charts\PieChart.js

```
import React from "react";
import { Pie } from "react-chartjs-2";
import Container from "react-bootstrap/Container";
import Row from "react-bootstrap/Row";
import Col from "react-bootstrap/Col";

const state = {
  labels: ["January", "February", "March", "April", "May"],
  datasets: [
    {
      label: "Rainfall",
      backgroundColor: ["#B21F00", "#C9DE00", "#2FDE00", "#00A6B4", "#6800B4"],
      hoverBackgroundColor: [
        "#501800",
        "#4B5000",
        "#175000",
        "#003350",
        "#35014F",
      ],
      data: [65, 59, 80, 81, 56],
    },
  ],
};
export default function PieChart() {
  return (
    <div>
      <Container>
        <Row className="justify-content-md-center">
          <Col lg={6}>
            <Pie data={state} />
          </Col>
        </Row>
      </Container>
    </div>
  );
}
```

hello-app\src\index.js

```
import React from "react";
import ReactDOM from "react-dom";
import PieChart from "./charts/PieChart";

ReactDOM.render(<PieChart />, document.getElementById("root"));
```

Example: Doughnut Chart:



hello-app\src\charts\DoughnutChart.js

```
import React from "react";
import { Doughnut } from "react-chartjs-2";
import Container from "react-bootstrap/Container";
import Row from "react-bootstrap/Row";
import Col from "react-bootstrap/Col";

const state = {
  labels: ["January", "February", "March", "April", "May"],
  datasets: [
    {
      label: "Rainfall",
      backgroundColor: ["#B21F00", "#C9DE00", "#2FDE00", "#00A6B4", "#6800B4"],
      hoverBackgroundColor: [
        "#501800",
        "#4B5000",
        "#175000",
        "#003350",
        "#35014F",
      ],
      data: [65, 59, 80, 81, 56],
    },
  ],
};
export default function PieChart() {
  return (
    <div>
      <Container>
        <Row className="justify-content-md-center">
          <Col lg={6}>
            <Doughnut data={state} />
          </Col>
        </Row>
      </Container>
    </div>
  );
}
```

hello-app\src\index.js

```
import React from "react";
import ReactDOM from "react-dom";
import Daughnut from "./charts/DoughnutChart";

ReactDOM.render(<Daughnut />, document.getElementById("root"));
```