My first Ecommerce project

start: 04/10/20

Set things up

1.make sure you have git & node.js latest version

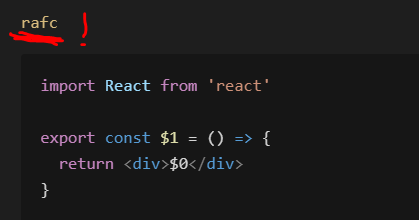
Just download the msi file. Check version by >>node -v

<https://nodejs.org/en/download/current/>

>>npm i -g npm

<https://www.npmjs.com/>

2. VS code extensions:

* ES7 react /redux/graphQL/ react-native snippits: rcc , rafce
* Bracket pair colorizer
* Auto rename tag -changing opening tac with the closing tag in jsx and html
* Javascript ES6 snippits: clg +enter=> console.log()
* Prettier

FRONT END-Start with create-react-app

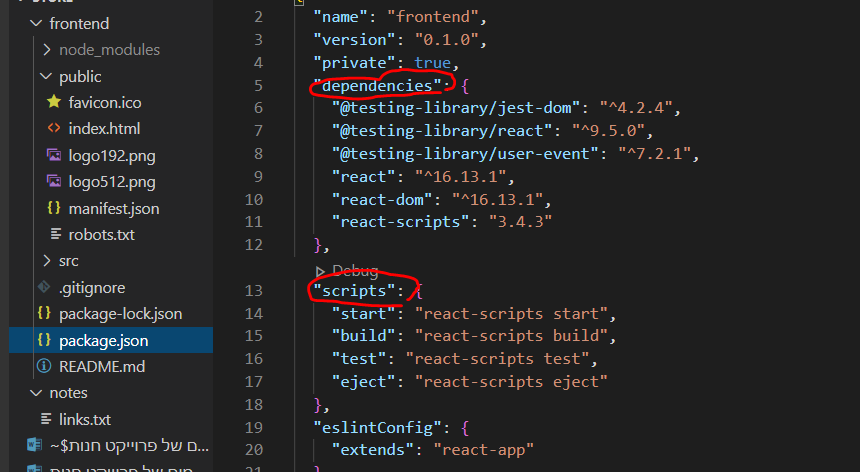
>>npx create-react-app frontend (yes! Npx!) :will create it inside frontend folder.

>>cd frontend

>>npm start //will run our frontend (react) web dev server

// ctrl +c will terminate the front end dev server.

Go to package.json=> check out the scripts and dependencies



React data flow:

react is a single page application

public-> index.html : the browser initially will read it.

It doesn’t have much in it except for a div with an id attribute “root”, this is the react entry point from:

src-> index.js which contains:

import App from './App';

ReactDOM.render(

  <React.StrictMode>

    <App />

  </React.StrictMode>,

  document.getElementById('root')

);

Src -> app.js is a component containing data that will be rendered to the DOM .

Public-> index.html : clean it a little bit:

<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="utf-8" />

    <link

      rel="icon"

      href="%PUBLIC\_URL%/Polyverse\_logo\_ico"

      type="image/x-icon"

    />

    <meta name="viewport" content="width=device-width, initial-scale=1" />

    <meta name="theme-color" content="#000000" />

    <meta

      name="description"

      content="POLYVERSE- makes your music feel different"

    />

    <link rel="apple-touch-icon" href="%PUBLIC\_URL%/logo192.png" />

    <link rel="manifest" href="%PUBLIC\_URL%/manifest.json" />

    <title>Polyverse Music</title>

  </head>

  <body>

    <noscript>You need to enable JavaScript to run this app.</noscript>

    <div id="root"></div>

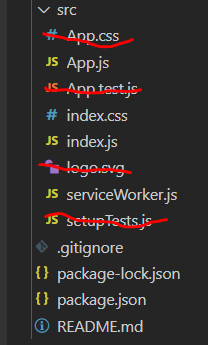
  </body>

</html>

will add a description in the tab and a small logo photo.

**Src->**

Files to clean:



Src-> app.js => lets clean it so the app won’t run what we’ve just deleted:

Did you notice the **JSX** syntax? Same as html with slight different.

Lets clear this code :

 <div className="App">

      <header className="App-header">

        <img src={logo} className="App-logo" alt="logo" />

        <p>

          Edit <code>src/App.js</code> and save to reload.

        </p>

        <a

          className="App-link"

          href="https://reactjs.org"

          target="\_blank"

          rel="noopener noreferrer"

        >

          Learn React

        </a>

      </header>

    </div>

Let’s make it an arrow function component:

import React from 'react'

const App = () => {

  return (

    <div>

      <h1>Hi!</h1>

    </div>

  )

}

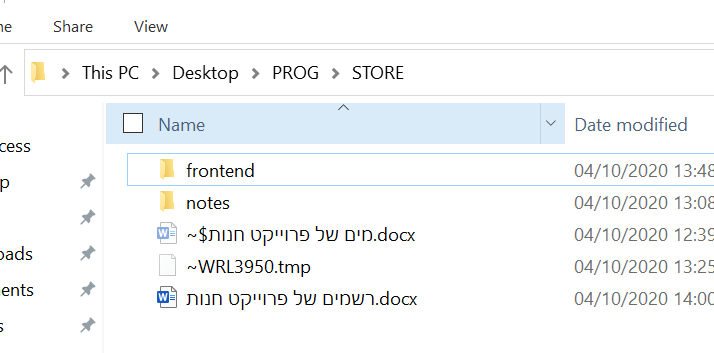
export default App

src -> index.css =>we will also delete all the content in this file

GIT- version control

Make sure you have the latest version of git.

Terminate the front end dev server by ctrl + c.

Go in windows to the frontend folder: right click ->

Bit bash here -> git bash cli opens ->

>> ls -a

//you will see all the hidden folders under the frontend folder and specificly the /.git

We want to delete it!

>> rm -rf .git

Now go to the  **.gitignore**  file and move it so it will be under frontend folder!

This file will let to define which folders/ files you don’t want to move to your github repository:

Basically node\_modules folder (because you may just download the repo and use

>> npm i to install all dependencies.)

We will make sure you add =>

# dependencies

node\_modules -> this one is the frontend node modules.

node\_modules/ -> this one is the backend node modules.

# misc

.env

.env ->a file in which we will store some global variables that may contain sensitive information such as pay pal API key , mongoDB URI – we don’t want GitHub users to see.

**Initializing GitHub Repository:**

In the terminal :

We want to be on the root folder -> STORE (right now you should be on frontend).

>> cd ..

>> git init

>> git add . 🡺 stage all files!

>> git status 🡺 check which files got staged

>> git commit -m 'React first setup' 🡺 push it

That’s is!

Now Relaunch the React dev server:

>>cd frontend

>>npm start

React-Working on the Front End.

Src-> create new folder -> compponents

Here all the components files will be.

Create inside components folder -> Header.js

Header.js 🡺 is our first component file! Naming conventions 🡺 upper case first letter + .js.

Now use the 🡺 rafce ->code snippet shortcut

So you will create a react arrow functional component syntax with export expression.

import React from 'react'

const Header = () => {

    return (

        <div>

        </div>

    )

}

export default Header

in the same manner create Footer.js file.

Render some text in both files.

App.js 🡺 import the footer and header components and render them:

import React from 'react'

import Header from './components/Header'

import Footer from './components/Footer'

const App = () => {

  return (

    <div>

      <Header />

      <main>

        <h1>this is some text</h1>

      </main>

      <Footer />

    </div>

  )

}

export default App

Using Bootswatch theme & React Bootstrap

\*you may also use Material UI

\*styled components.

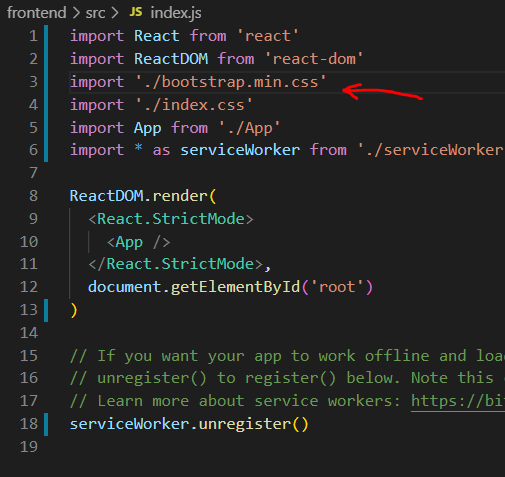
\*CSS

<https://bootswatch.com/>

download a template as you wish 🡺 bootstrap.min.css

drag the file to frontend-> src.

Index.js 🡺



You may see that the font has change.

Now let’s install Bootstrap:

Terminal:

Make sure you on frontend folder.

>> npm I react-bootstrap

Go back to App.js

Import container from bootstrap and use it to render h1, will move the text 20% to the center of the page:

import React from 'react'

import { Container } from 'react-bootstrap'

import Header from './components/Header'

import Footer from './components/Footer'

const App = () => {

  return (

    <div>

      <Header />

      <main>

        <Container>

          <h1> Poly-this is some text</h1>

        </Container>

      </main>

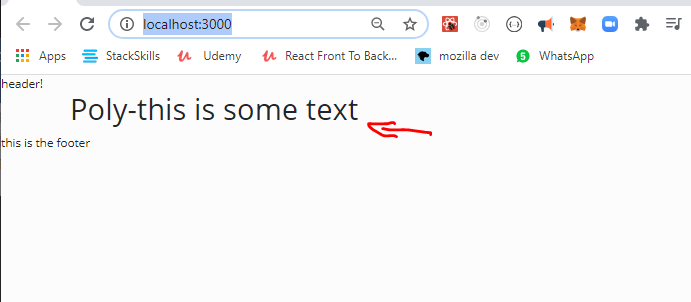
      <Footer />

    </div>

  )

}

export default App



Footer.js 🡺 we want to center the text in the footer and push it to the bottom of the page.

We will use bootstrap and CSS at index.css file

Import some more bootstrap components: Row & Col.

import React from 'react'

import { Container, Row, Col } from 'react-bootstrap'

const Footer = () => {

  return (

    <footer>

      <Container>

        <Row>

          <Col className='text-center py-3'>Copyright &copy; Polyverse </Col>

        </Row>

      </Container>

    </footer>

  )

}

export default Footer

lets explain 🡺

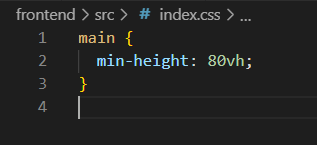
<Col className='text-center py-3'>Copyright &copy; Polyverse </Col>

className='text-center py-3' 🡺 we use className to pass the visual inputs to bootstrap.

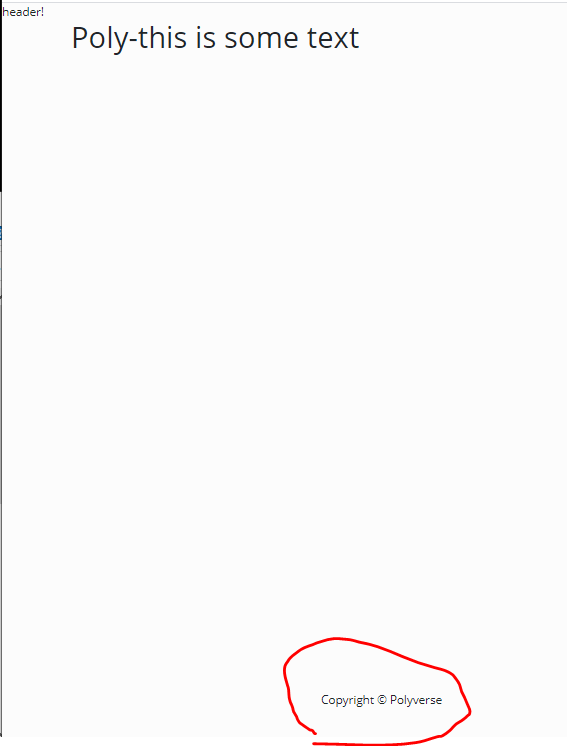
Text center + padding top and bottom.

&copy;  🡺 is the copyright © sign

Index.css 🡺 will push the text down.



And the result :



**Creating a NAV BAR**

Header.js🡺

<https://react-bootstrap.github.io/components/navbar/>

choose from the documentation a navbar code example and add it to the Header component:

import React from 'react'

import { Navbar, Nav, Container } from 'react-bootstrap'

import mainLogo from './mainlogo.png'

const Header = () => {

  return (

    <header>

      <Navbar bg='light' expand='lg' collapseOnSelect>

        <Container>

          <Navbar.Brand href='/'>

            <img

              src={mainLogo}

              className='d-inline-block align-top'

              alt='Polyverse logo'

            />

          </Navbar.Brand>

          <Navbar.Toggle aria-controls='basic-navbar-nav' />

          <Navbar.Collapse id='basic-navbar-nav'>

            <Nav className='ml-auto'>

              <Nav.Link href='/cart' varient='dark'>

                <h2>Cart</h2>

              </Nav.Link>

              <Nav.Link href='/login' varient='dark'>

                <h2>Sign In</h2>

              </Nav.Link>

            </Nav>

          </Navbar.Collapse>

        </Container>

      </Navbar>

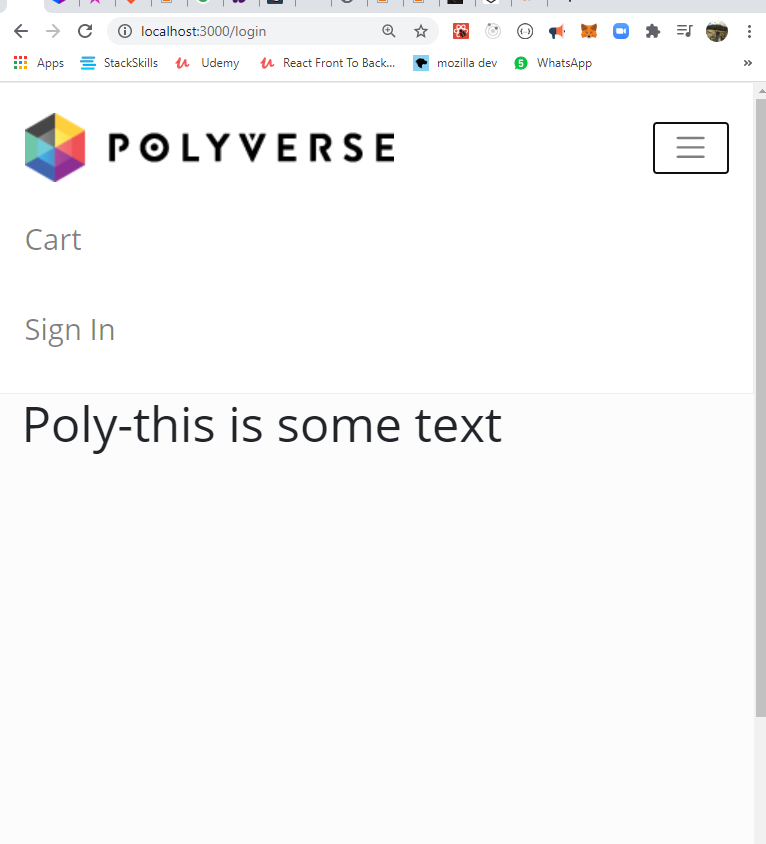
    </header>

  )

}

export default Header

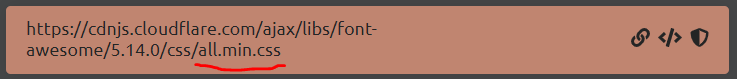
* Make sure you add your logo.png to the components folder. And import it to the component.



Adding icons with font awesome CDN:

Go to: <https://cdnjs.com/>

Search for font awesome CDN:



Copy Link Tag </>

And paste in public 🡺 index.html

Above the title tag :

 <link

      rel="stylesheet"

      href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.14.0/css/all.min.css"

      integrity="sha512-1PKOgIY59xJ8Co8+NE6FZ+LOAZKjy+KY8iq0G4B3CyeY6wYHN3yt9PW0XpSriVlkMXe40PTKnXrLnZ9+fkDaog=="

      crossorigin="anonymous"

    />

    <title>Polyverse Music</title>

Lets search for icons for shopping cart & login:

Implement it in the navbar code:

 <Nav className='ml-auto'>

              <Nav.Link href='/cart' varient='dark'>

                <h4>

                  {' '}

                  <i className='fas fa-shopping-cart'></i> Cart

                </h4>

              </Nav.Link>

              <Nav.Link href='/login' varient='dark'>

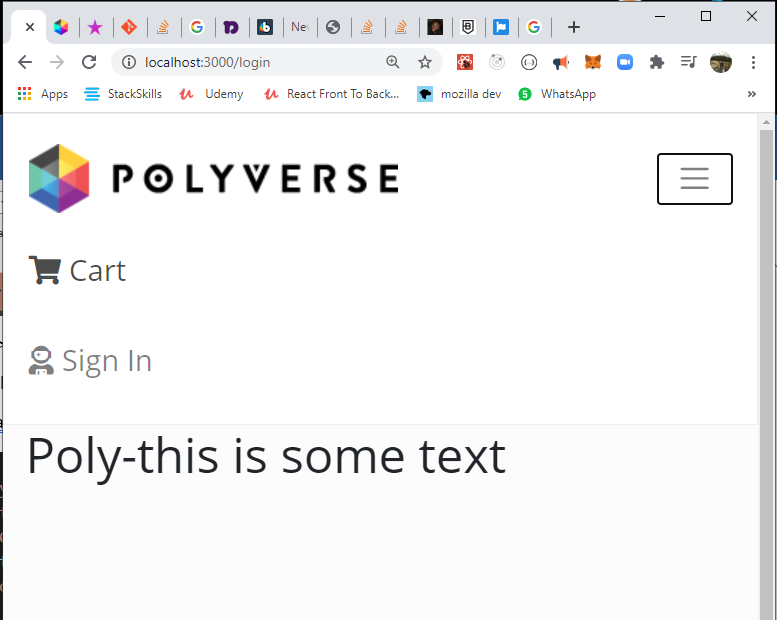
                <h4>

                  <i className='fas fa-user-astronaut'></i> Sign In

                </h4>

              </Nav.Link>

 </Nav>



Website main content area:

Now lets create some space between the web content and the nav bar with bootstrap className=’py-4’

Src->App.js 🡺

const App = () => {

  return (

    <div>

      <Header />

      <main className='py-4'>

        <Container>

          <h1> Poly-this is some text</h1>

        </Container>

      </main>

      <Footer />

    </div>

  )

}

export default App

**Adding products:**

Frontend->public 🡺 create a new folder “images” : add to it all your products photos.

Frontend -> src 🡺 create a new file : products.js .

add to it products: an array of objects.

const products = [

  {

    \_id: '1',

    name: 'Airpods Wireless Bluetooth Headphones',

    image: '/images/airpods.jpg',

    description:

      'Bluetooth technology lets you connect it with compatible devices wirelessly High-quality AAC audio offers immersive listening experience Built-in microphone allows you to take calls while working',

    brand: 'Apple',

    category: 'Electronics',

    price: 89.99,

    countInStock: 10,

    rating: 4.5,

    numReviews: 12,

  }]

Lets start working on our shop:

Src🡺 new folder “screens” 🡺 new file HomeScreen.js

Import products (notice it is lower case import!!!)

and bootstrap Row & Col

Render all product names to the dom.

<Col sm={12} md={6} lg={4} xl={3}>

🡺 a syntax for what will be the column size on different screens (small, medium, large …)

import React from 'react'

import { Row, Col } from 'react-bootstrap'

import products from '../products'

const HomeScreen = () => {

  return (

    <>

      <h1> Latest Products </h1>

      <Row>

        {products.map((product) => (

          <Col sm={12} md={6} lg={4} xl={3}>

            <h3>{product.name}</h3>

          </Col>

        ))}

      </Row>

    </>

  )

}

export default HomeScreen

add the component to the App.js 🡺

import HomeScreen from './screens/HomeScreen'

const App = () => {

  return (

    <div>

      <Header />

      <main className='py-4'>

        <Container>

          <HomeScreen />

        </Container>

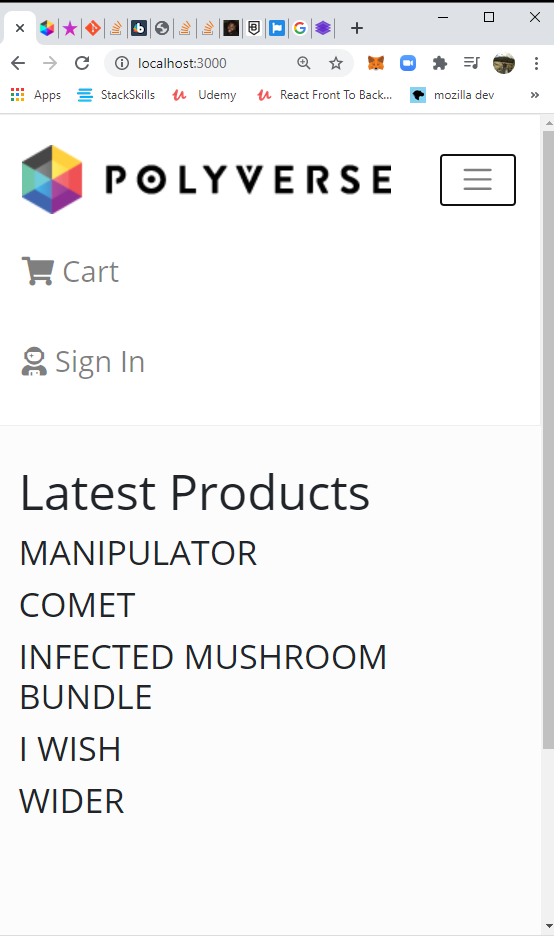
      </main>

      <Footer />

    </div>

  )

}



**Product CARD component:**

**Src -> components 🡺 new file ProductCard.js**

import React from 'react'

import { Card } from 'react-bootstrap'

const ProductCard = ({ product }) => { //destructure product from the prop

  return (

    <Card className='my-3 p-3 rounded zoom'> // margin padding round corners & zoom on hover!!!

      <a href={`/product/${product.\_id}`}> //soon we will change it to react router Link

        <Card.Img src={product.image} variant='top' />

      </a>

    </Card>

  )

}

export default ProductCard

**In src->screens-> HomeScreen.js make sure you :**

import ProductCard from '../components/ProductCard'

and add the card component under the product name and pass it a prop=> of the current product being looped in the map method.

 <h1> Latest Products </h1>

      <Row>

        {productsCat.map((product) => (

          <Col sm={12} md={6} lg={4} xl={3}>

            <ProductCard product={product} />

          </Col>

        ))}

      </Row>

**Zoom on hove Card :** we added a className of zoom to the card in ProductCard.js

Index.css 🡺

.zoom {

  transition: transform 0.2s; /\* Animation \*/

  margin: 0 auto;

}

.zoom:hover {

  transform: scale(1.1); /\* (10% zoom)\*/

  z-index: 1;

}

**Product card.js:**

Lets design the structure of the card: an image, name of product, star ratings, number of reviews and price.

Add an import to Ratings.js – this component renders the star icons ratings.

import React from 'react'

import { Card } from 'react-bootstrap'

import Ratings from './Ratings'

const ProductCard = ({ product }) => {

  //destructure props

  return (

    <Card className='my-3 p-3 rounded zoom'>

      <div>

        <a href={`/product/${product.\_id}`}>

          <Card.Img src={product.image} variant='top' />

        </a>

      </div>

      <Card.Body>

        <a href={`/product/${product.\_id}`} className='text-decoration-none'>

          <Card.Title as='div' className='text-info'>

            <p class='font-weight-bold h4'>{product.name}</p>

          </Card.Title>

        </a>

        <Card.Text as='div' className='my-3 text-dark h5'>

          <Ratings value={product.rating} text={product.numReviews} /> //pass two props: the rating and number of reviews!

        </Card.Text>

        <Card.Text as='h3'>${product.price}</Card.Text>

      </Card.Body>

    </Card>

  )

}

export default ProductCard

components-> Ratings.js 🡺 this component will return stars rating and beneath it a text of number of reviewers.   
CHECK OUT THE STAR ICON AT <https://fontawesome.com/icons?d=gallery&q=star>

FIND HALF STAR ICON ALSO!

import React from 'react'

const Ratings = ({ value, text }) => {

  return (

    <div className='rating'>

      <span>

        <i

          className={

            value >= 1

              ? 'fas fa-star'

              : value >= 0.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star' //empty star

          }

        ></i>

      </span>

      <span>

        <i

          className={

            value >= 2

              ? 'fas fa-star'

              : value >= 1.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <span>

        <i

          className={

            value >= 3

              ? 'fas fa-star'

              : value >= 2.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <span>

        <i

          className={

            value >= 4

              ? 'fas fa-star'

              : value >= 3.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <span>

        <i

          className={

            value >= 5

              ? 'fas fa-star'

              : value >= 4.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <p>{text > 1 ? `${text} Artists reviews` : `${text} Artist review`}</p>

      {/\*may also write {text && text} \*/}

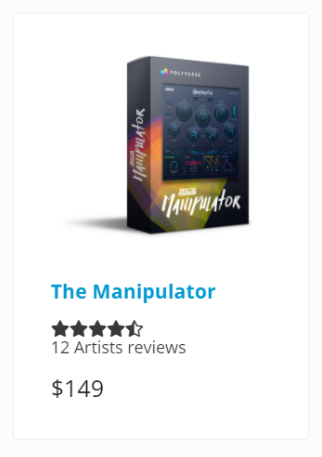
    </div>

  )

}

export default Ratings

**SO THE CARD WILL LOOK LIKE THAT :**



**Ratings.js 🡺**

Lets add more features:

1. Yellow color to the rating stas (as a prop that its color set by default as yellow)
2. Set up default prop method.
3. Set up propTypes to regulate the data type that we receive in the props.

import React from 'react'

import PropTypes from 'prop-types' //impt -shortcut. //import propTypes!

const Ratings = ({ value, text, starColor }) => { //star color prop!

  return (

    <div className='rating'>

      <span>

        <i

          style={{ color: starColor }} //react CSS inline style as star color prop!- make sure you code-> style ={{ }}.

          className={

            value >= 1

              ? 'fas fa-star'

              : value >= 0.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star' //empty star

          }

        ></i>

      </span>

      <span>

        <i

          style={{ color: starColor }}

          className={

            value >= 2

              ? 'fas fa-star'

              : value >= 1.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <span>

        <i

          style={{ color: starColor }}

          className={

            value >= 3

              ? 'fas fa-star'

              : value >= 2.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <span>

        <i

          style={{ color: starColor }}

          className={

            value >= 4

              ? 'fas fa-star'

              : value >= 3.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <span>

        <i

          style={{ color: starColor }}

          className={

            value >= 5

              ? 'fas fa-star'

              : value >= 4.5

              ? 'fas fa-star-half-alt'

              : 'far fa-star'

          }

        ></i>

      </span>

      <p>{text > 1 ? `${text} Artists reviews` : `${text} Artist review`}</p>

      {/\*may also write {text && text} \*/}

    </div>

  )

}

//set default prop

Ratings.defaultProps = {

  //set starColor (it's a component props) as yellow by default

  starColor: '#fada00',

}

//propTypes- setting the data types of the props. if conditions not met, will throw an error in consule.

Ratings.propTypes = {

  value: PropTypes.number.isRequired,

  text: PropTypes.string.isRequired,

  starColor: PropTypes.string,

}

export default Ratings

Implementing React Router!