Milestone 2 - React / Redux / Router

Team: AbsoluteZero

- Aaron Barthel
- Danish Habib
- Irwin Singh
- Fahad Hameed

What is the Project?

- E-commerce store
- Role Playing Game (RPG) themed

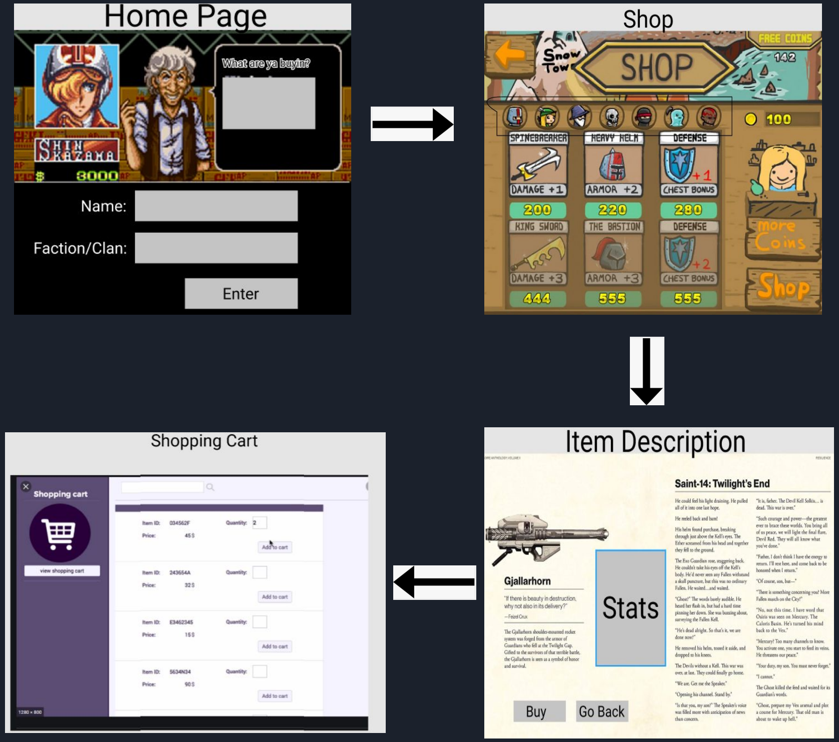
Conceptual Design

Minimum Required Pages

- Home Page / User log-in
- Store-front
- Individual Item
- Shopping cart

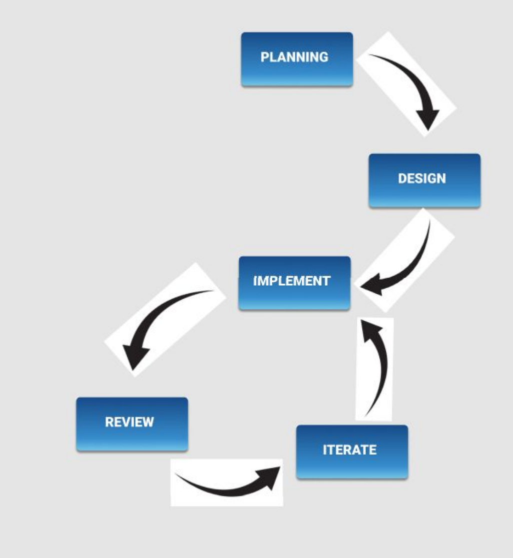
Stretch Goals

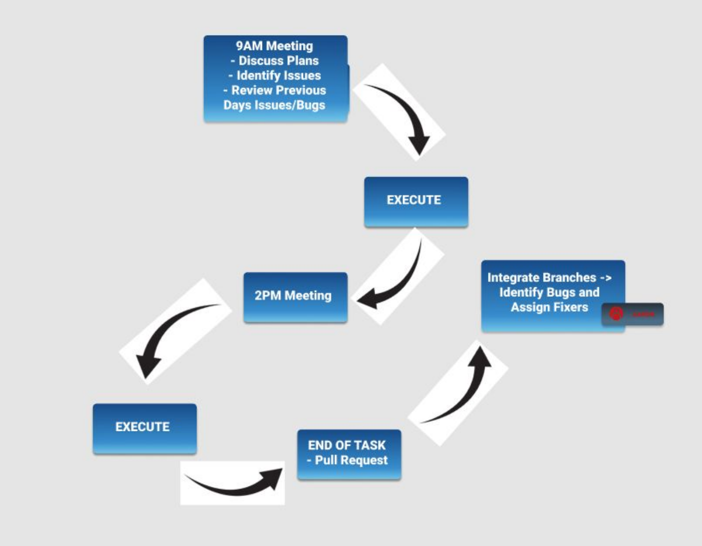
- Checkout
- Search bar
- Custom item builder



High Level Planning

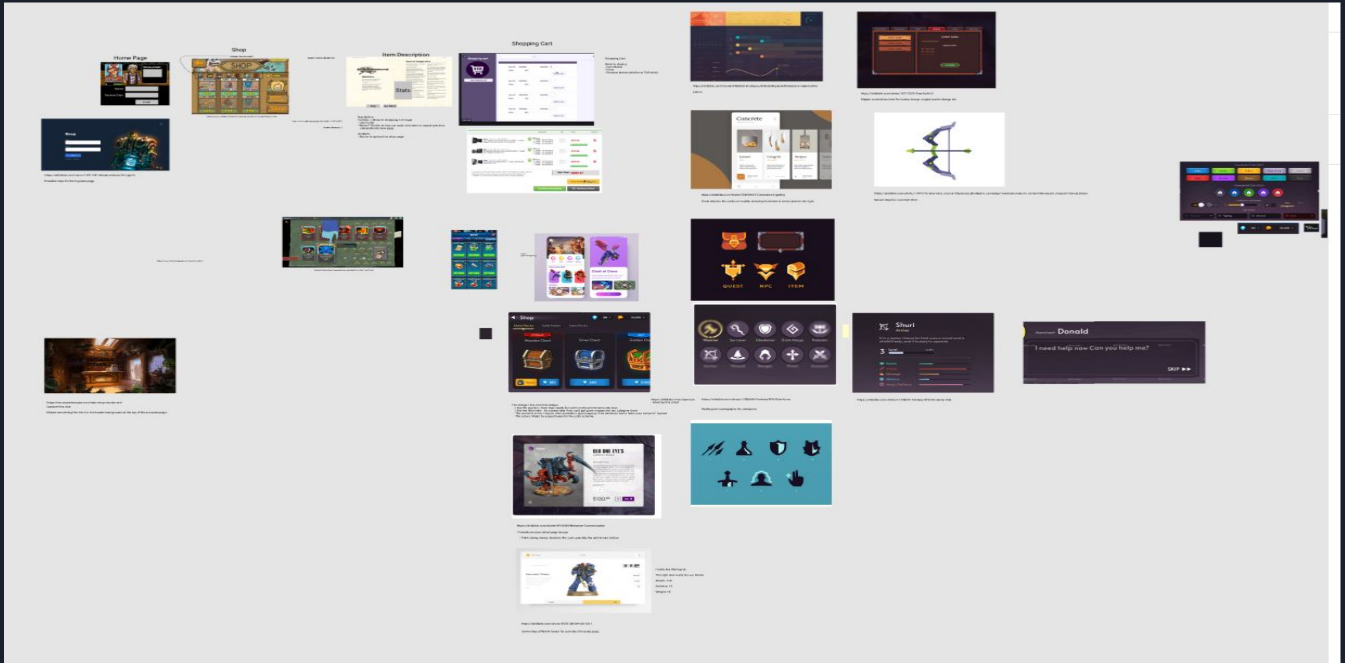
The Planning / Execution / Review / Iterate process -> Pre-assigned roles and responsibilities.





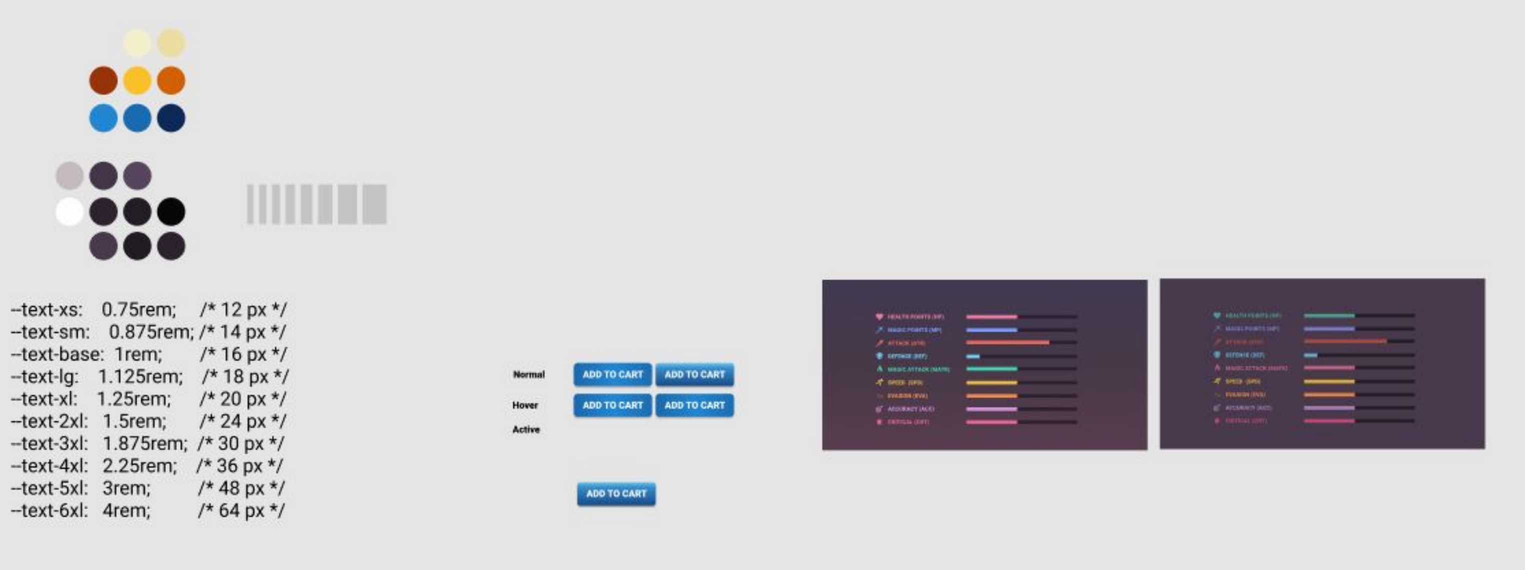
Art Board

Keeping all inspiration in one place.



Unified Asset List

Assure we all use the same fonts, styles, and colors.



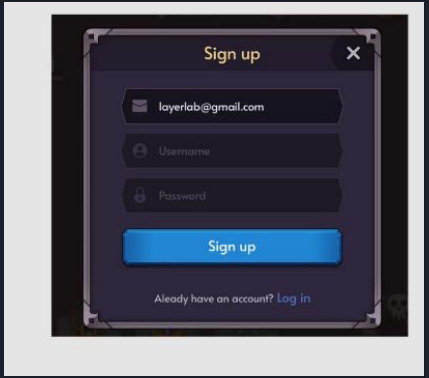
```
--text-xs:   0.75rem;    /* 12 px */
--text-sm:   0.875rem; /* 14 px */
--text-base: 1rem;       /* 16 px */
--text-lg:   1.125rem;   /* 18 px */
--text-xl:   1.25rem;    /* 20 px */
--text-2xl:  1.5rem;     /* 24 px */
--text-3xl:  1.875rem;  /* 30 px */
--text-4xl:  2.25rem;   /* 36 px */
--text-5xl:  3rem;        /* 48 px */
--text-6xl:  4rem;        /* 64 px */
```

Planned Feature List

- “Sign In Page”
    - User can log in (if they have the right credentials
- “Product List Page”
    - User can see a list of various items, and filter by different categories
- “Product Detail Page”
    - User can see more details about a specific item, and add items to a Shopping Cart
- “Shopping Cart Page”
    - User can see the items they have added to the Shopping Cart and purchase them

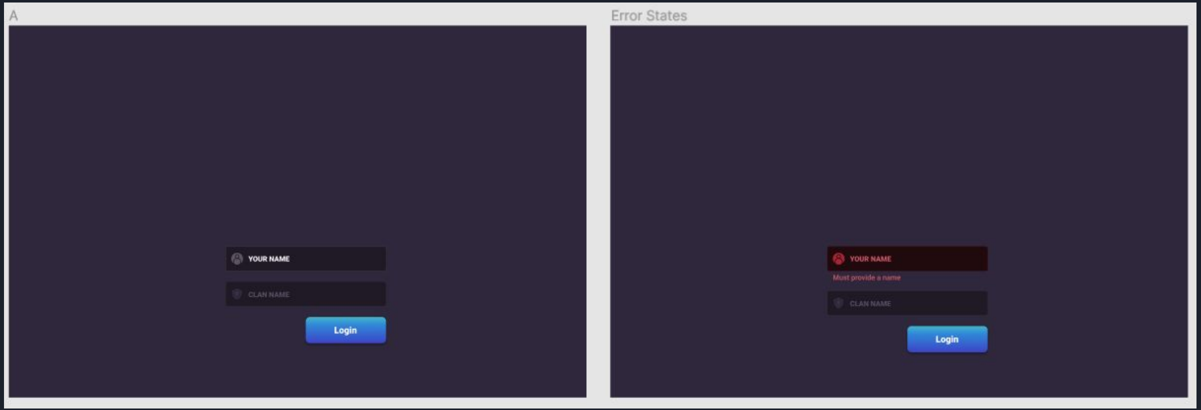
Sign In Page Planning

Conceptual Sign In Page -> Figma Sign In Page



layerlab@gmail.com

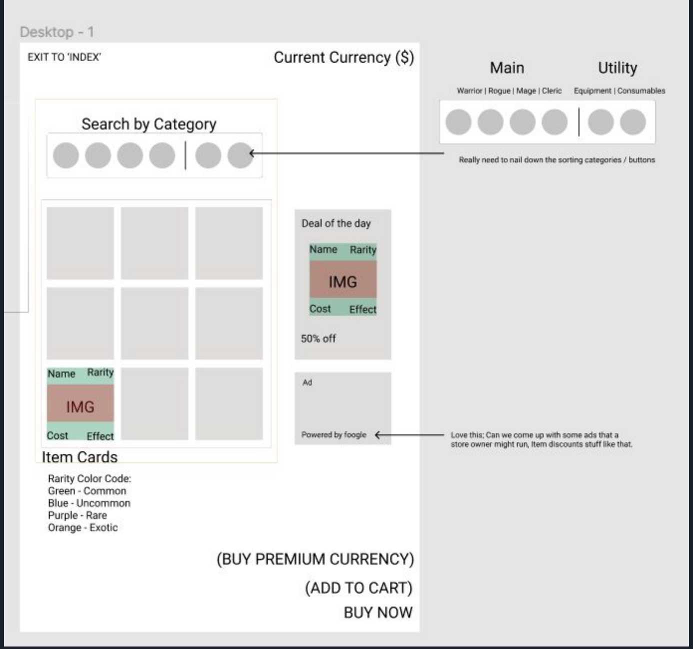
Aleady have an account? Log in



Must provide a name

Product List Planning

Low Fi Product List -> Hi Fi Product List



Desktop - 1

EXIT TO 'INDEX'

Current Currency ($)

Search by Category

Main

Utility

Warrior | Rogue | Mage | Cleric

Equipment | Consumables

Really need to nail down the sorting categories / buttons

Deal of the day

Name Rarity

IMG

Cost Effect

50% off

Ad

Powered by foogle

Love this; Can we come up with some ads that a store owner might run, Item discounts stuff like that.

Name Rarity

IMG

Cost Effect

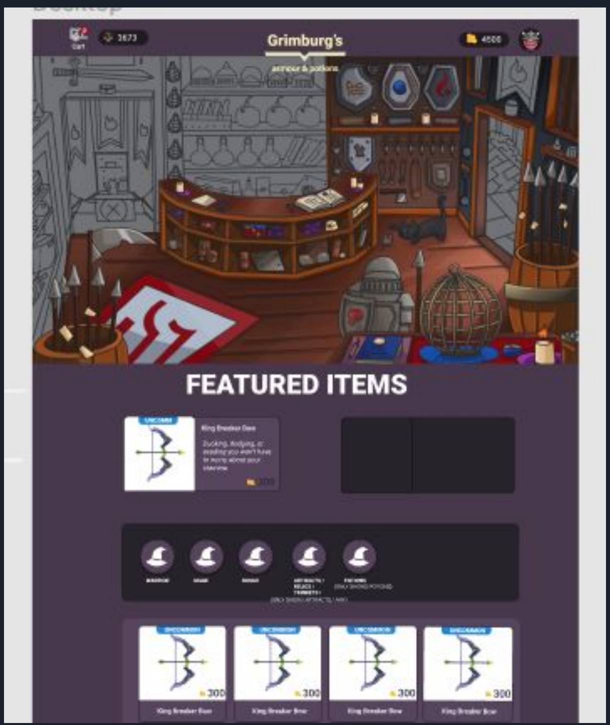
Item Cards

Rarity Color Code:
Green - Common
Blue - Uncommon
Purple - Rare
Orange - Exotic

(BUY PREMIUM CURRENCY)

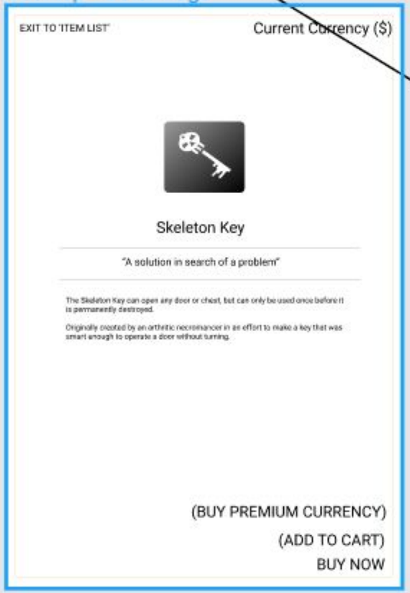
(ADD TO CART)

BUY NOW



Product Detail Planning

Desktop - Detail Page



EXIT TO 'ITEM LIST'

Current Currency ($)

Skeleton Key

"A solution in search of a problem"

The Skeleton Key can open any door or chest, but can only be used once before it is permanently destroyed.

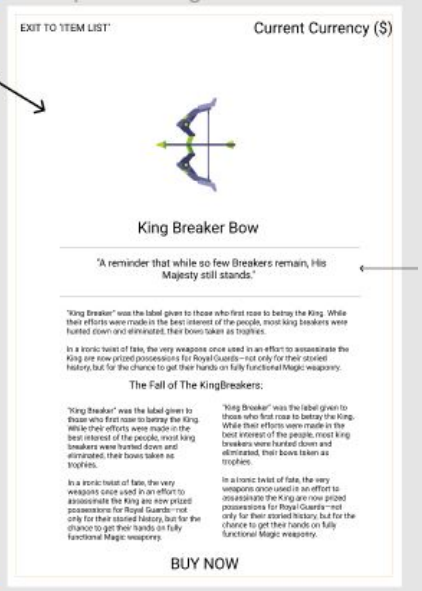
Originally created by an arthritic necromancer in an effort to make a key that was smart enough to operate a door without turning.

(BUY PREMIUM CURRENCY)

(ADD TO CART)

BUY NOW

Desktop - Detail Page



EXIT TO 'ITEM LIST'

Current Currency ($)

King Breaker Bow

"A reminder that while so few Breakers remain, His Majesty still stands."

"King Breaker" was the label given to those who first rose to betray the King. While their efforts were made in the best interest of the people, most king breakers were hunted down and eliminated, their bows taken as trophies.

In a ironic twist of fate, the very weapons once used in an effort to assassinate the King are now prized possessions for Royal Guards—not only for their storied history, but for the chance to get their hands on fully functional Magic weaponry.

The Fall of The KingBreakers:

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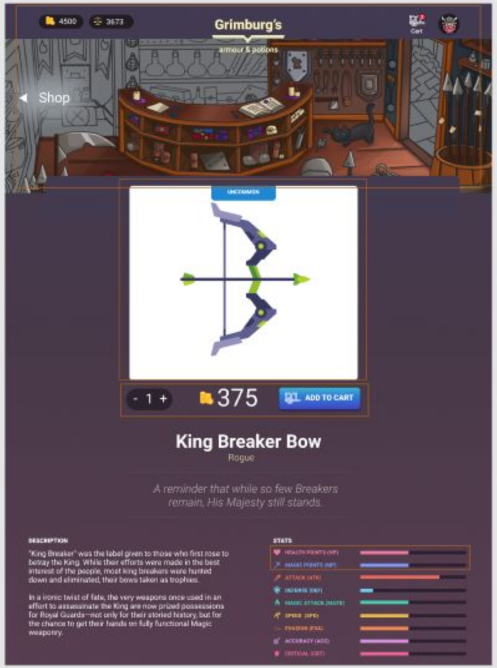
BUY NOW

A



King Breaker Bow

Rogue

A reminder that while so few Breakers remain, His Majesty still stands.

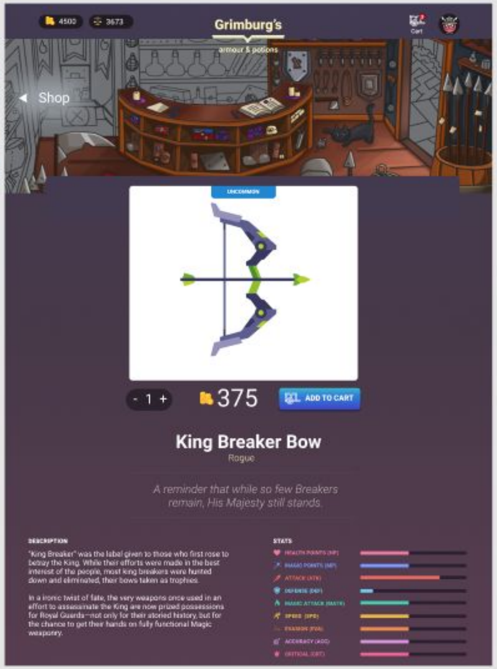
DESCRIPTION

"King Breaker" was the label given to those who first rose to betray the King. While their efforts were made in the best interest of the people, most king breakers were hunted down and eliminated, their bows taken as trophies.

In a ironic twist of fate, the very weapons once used in an effort to assassinate the King are now prized possessions for Royal Guards—not only for their storied history, but for the chance to get their hands on fully functional Magic weaponry.

STATS

A



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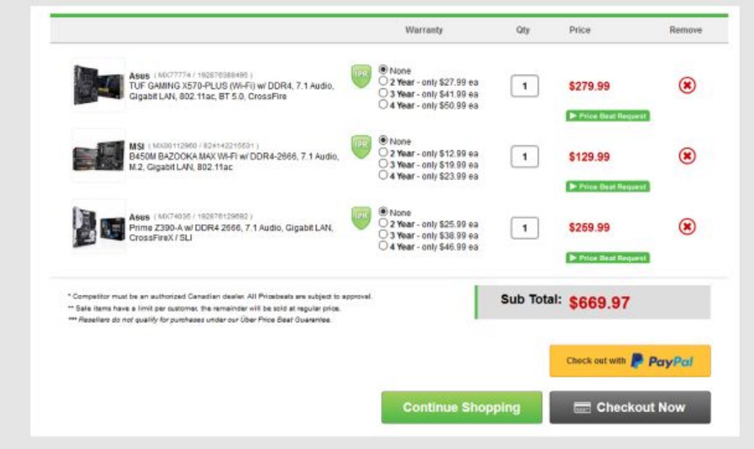
STATS

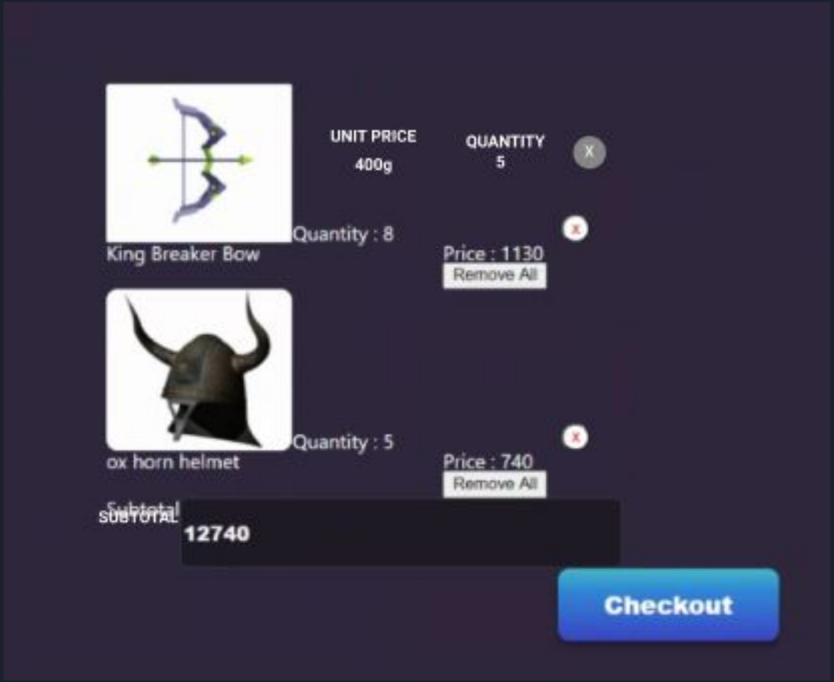
Shopping List Planning



	Warranty	Qty	Price	Remove
Asus (MX77774 / 192876388496) TUF GAMING X570-PLUS (Wi-Fi) w/ DDR4, 7.1 Audio, Gigabit LAN, 802.11ac, BT 5.0, CrossFire	● None ○ **2 Year** - only $27.99 ea ○ **3 Year** - only $41.99 ea ○ **4 Year** - only $50.99 ea	1	$279.99 ▶ Price Beat Request	⊗
MSI (MX00112960 / 824142215531) B450M BAZOOKA MAX WI-FI w/ DDR4-2666, 7.1 Audio, M.2, Gigabit LAN, 802.11ac	● None ○ **2 Year** - only $12.99 ea ○ **3 Year** - only $19.99 ea ○ **4 Year** - only $23.99 ea	1	$129.99 ▶ Price Beat Request	⊗
Asus (MX74036 / 192876129692) Prime Z390-A w/ DDR4 2666, 7.1 Audio, Gigabit LAN, CrossFireX / SLI	● None ○ **2 Year** - only $25.99 ea ○ **3 Year** - only $38.99 ea ○ **4 Year** - only $46.99 ea	1	$259.99 ▶ Price Beat Request	⊗

* Competitor must be an authorized Canadian dealer. All Pricebeats are subject to approval.
** Sale items have a limit per customer, the remainder will be sold at regular price.
*** *Resellers do not qualify for purchases under our Über Price Beat Guarantee.*

Sub Total: $669.97



UNIT PRICE
400g

QUANTITY
5

King Breaker Bow
Quantity : 8
Price : 1130

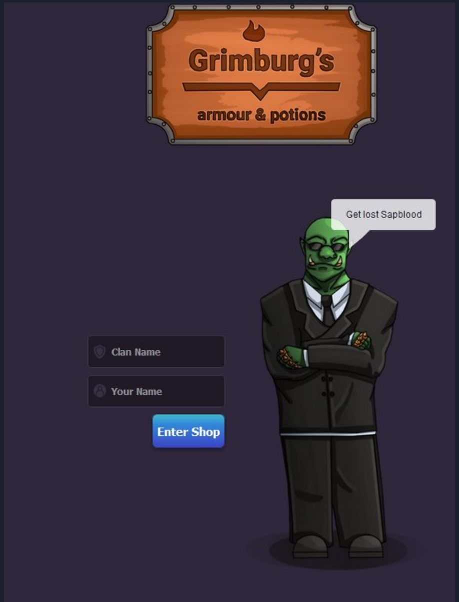
ox horn helmet
Quantity : 5
Price : 740

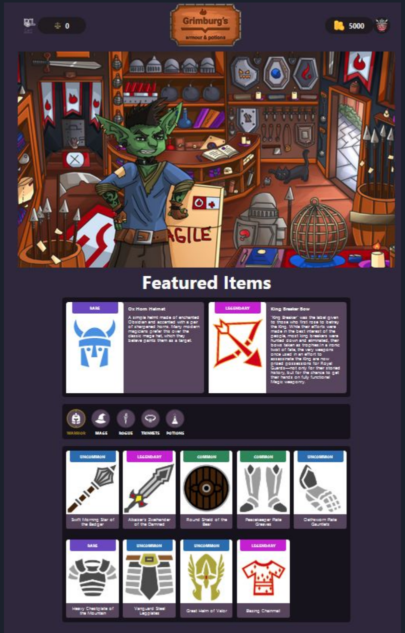
Subtotal
SUBTOTAL
12740

Demo Credentials
Clan: TheAbsoluteZeros
Name: Fahad

The Final Product

Sign In -> Shop Page -> Detail Page -> Checkout Page





Featured Items

RARE
Ox Horn Helmet
A simple helmt made of enchanted Obsidian and accented with a pair of sharpened horns. Many modern magicians prefer this over the classic mage hat, which they believe paints them as a target.

LEGENDARY
King Breaker Bow
'King Breaker' was the label given to those who first rose to betray the King. While their efforts were made in the best interest of the people, most king breakers were hunted down and eliminated, their bows taken as trophies.In a ironic twist of fate, the very weapons once used in an effort to assassinate the King are now prized possessions for Royal Guards—not only for their storied history, but for the chance to get their hands on fully functional Magic weaponry.

UNCOMMON
Swift Morning Star of the Badger

LEGENDARY
Alkaizer's Zweihander of the Damned

COMMON
Round Shield of the Bear

COMMON
Peacekeeper Plate Greaves

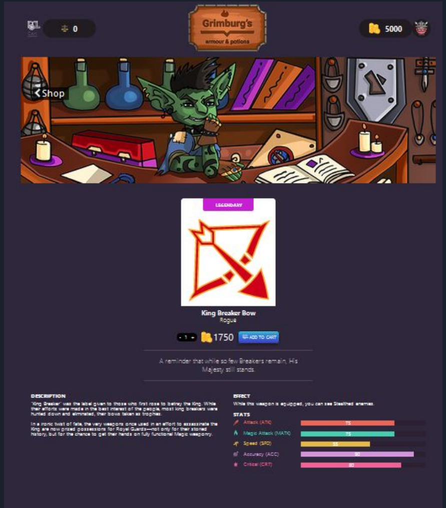
UNCOMMON
Oathsworn Plate Gauntlets

RARE
Heavy Chestplate of the Mountain

UNCOMMON
Vanguard Steel Legplates

UNCOMMON
Great Helm of Valor

LEGENDARY
Blazing Chainmail



King Breaker Bow
Rogue

A reminder that while so few Breakers remain, His Majesty still stands.

DESCRIPTION

'King Breaker' was the label given to those who first rose to betray the King. While their efforts were made in the best interest of the people, most king breakers were hunted down and eliminated, their bows taken as trophies.

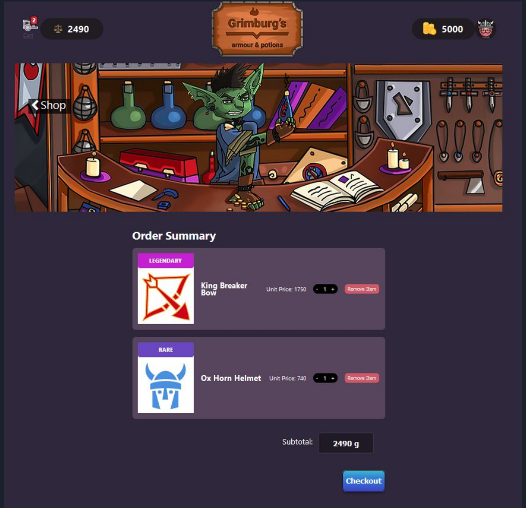
In a ironic twist of fate, the very weapons once used in an effort to assassinate the King are now prized possessions for Royal Guards—not only for their storied history, but for the chance to get their hands on fully functional Magic weaponry.

EFFECT

While this weapon is equipped, you can see Stealthed enemies.

STATS

Attack (ATK)	75
Magic Attack (MATK)	75
Speed (SPD)	55
Accuracy (ACC)	90
Critical (CRT)	80



Order Summary

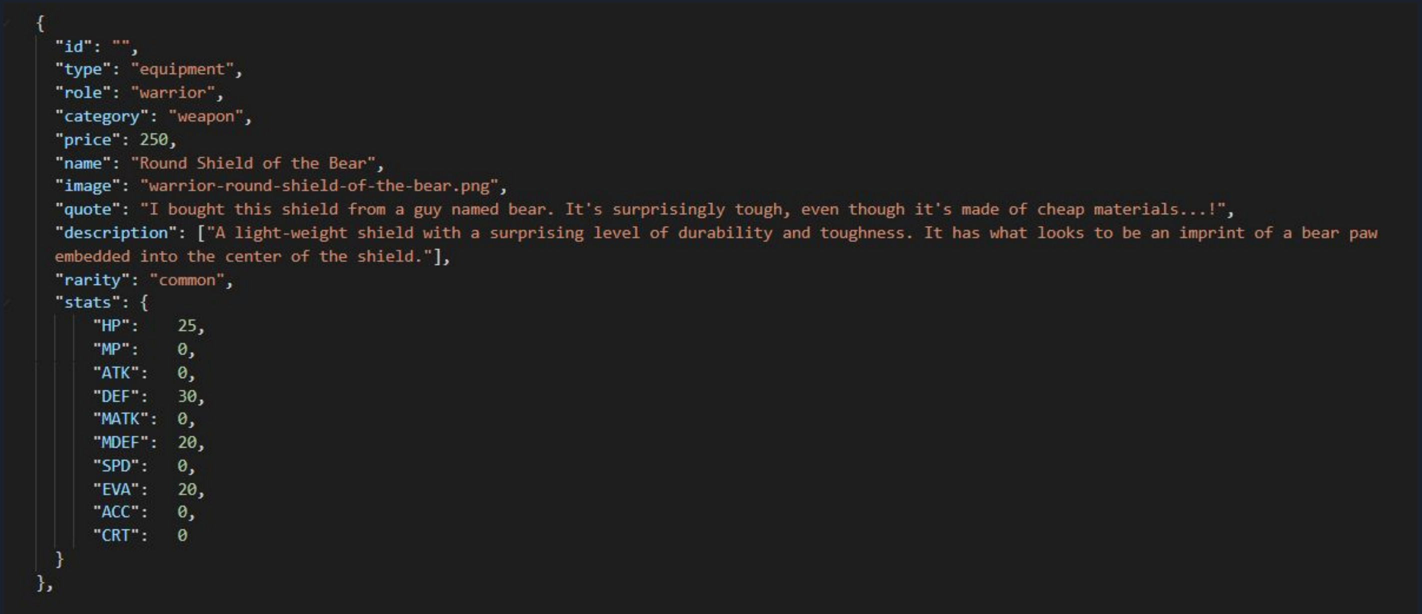
LEGENDARY	King Breaker Bow	Unit Price: 1750	- 1 +	Remove Item
RARE	Ox Horn Helmet	Unit Price: 740	- 1 +	Remove Item

Subtotal: 2490 g

Demo Credentials
Clan: TheAbsoluteZeros
Name: Irwin

Code Snippets - JSON Data Structure

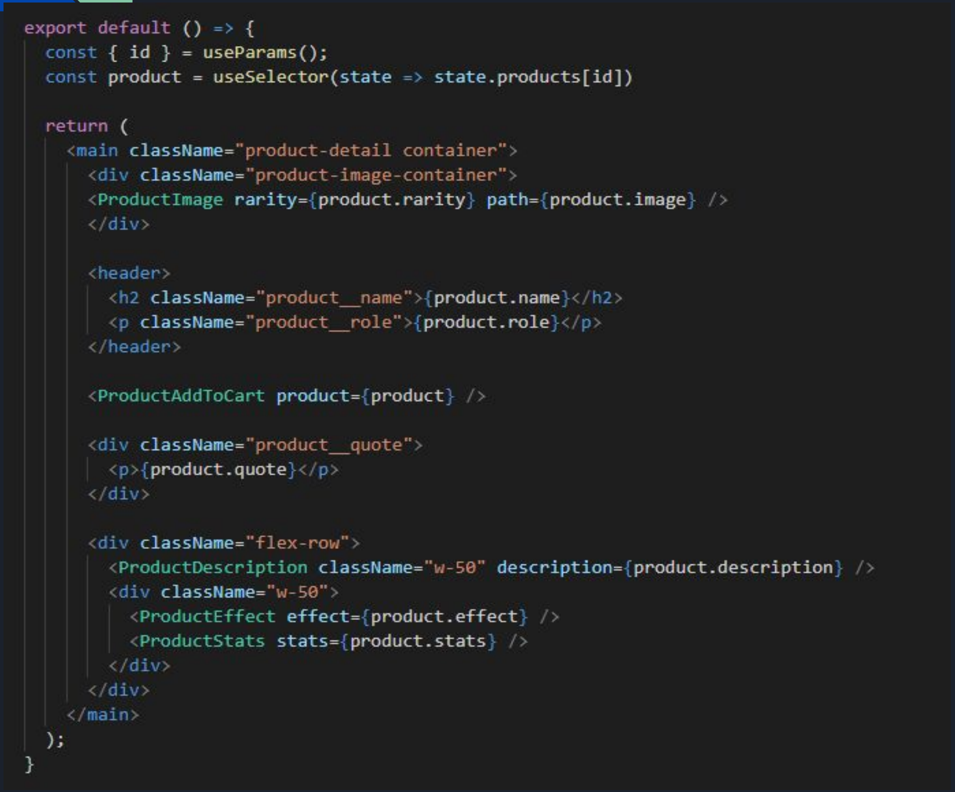
We saved all our items in JSON format and extracted what we needed where we needed it.



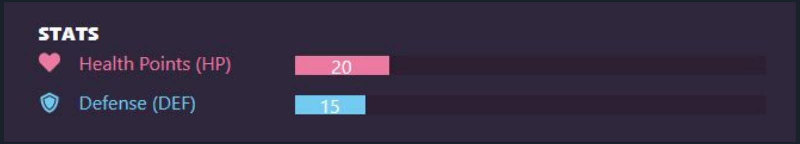
```
{
  "id": "",
  "type": "equipment",
  "role": "warrior",
  "category": "weapon",
  "price": 250,
  "name": "Round Shield of the Bear",
  "image": "warrior-round-shield-of-the-bear.png",
  "quote": "I bought this shield from a guy named bear. It's surprisingly tough, even though it's made of cheap materials...!",
  "description": ["A light-weight shield with a surprising level of durability and toughness. It has what looks to be an imprint of a bear paw embedded into the center of the shield."],
  "rarity": "common",
  "stats": {
      "HP":    25,
      "MP":    0,
      "ATK":   0,
      "DEF":   30,
      "MATK":  0,
      "MDEF":  20,
      "SPD":   0,
      "EVA":   20,
      "ACC":   0,
      "CRT":   0
  }
},
```

Demo Credentials
Clan: TheAbsoluteZeros
Name: Irwin

Code Snippets - Stat Cards



```
export default () => {
  const { id } = useParams();
  const product = useSelector(state => state.products[id])

  return (
    <main className="product-detail container">
      <div className="product-image-container">
      <ProductImage rarity={product.rarity} path={product.image} />
      </div>

      <header>
        <h2 className="product__name">{product.name}</h2>
        <p className="product__role">{product.role}</p>
      </header>

      <ProductAddToCart product={product} />

      <div className="product__quote">
        <p>{product.quote}</p>
      </div>

      <div className="flex-row">
        <ProductDescription className="w-50" description={product.description} />
        <div className="w-50">
          <ProductEffect effect={product.effect} />
          <ProductStats stats={product.stats} />
        </div>
      </div>
    </main>
  );
}
```



STATS

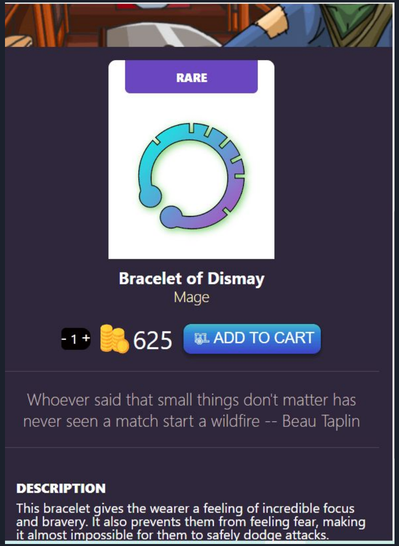
♥ Health Points (HP) 20

Defense (DEF) 15

Demo Credentials
Clan: TheAbsoluteZeros
Name: Danish

Why I chose this card:

I like what the quote says and i think it depicts how we worked and how every small component mattered at the end



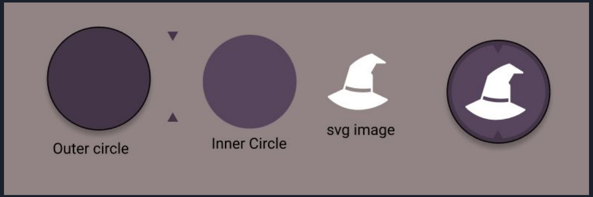
Whoever said that small things don't matter has never seen a match start a wildfire -- Beau Taplin

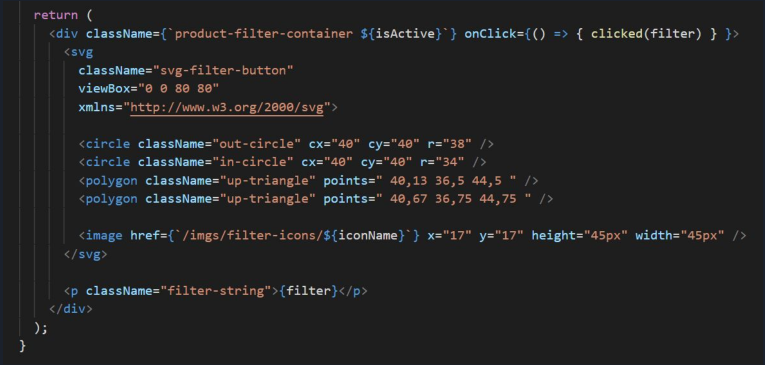
DESCRIPTION

This bracelet gives the wearer a feeling of incredible focus and bravery. It also prevents them from feeling fear, making it almost impossible for them to safely dodge attacks.

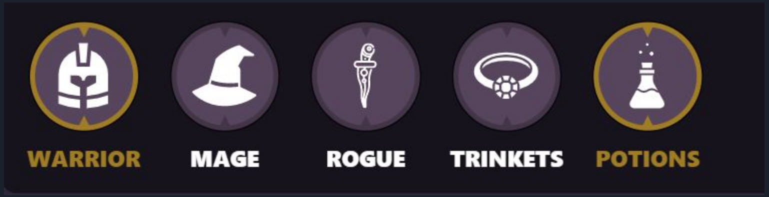
Demo Credentials
Clan: TheAbsoluteZeros
Name: Danish

Design process of SVG file



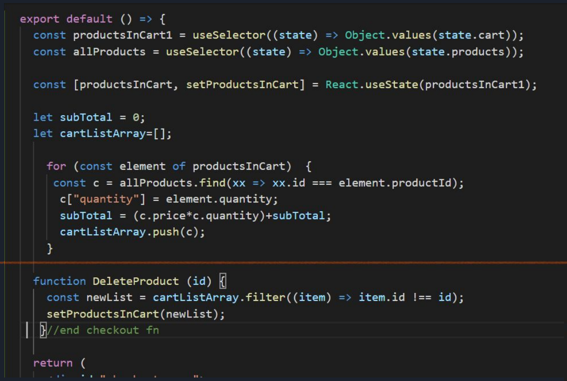


```
  return (
    <div className={`product-filter-container ${isActive}`} onClick={() => { clicked(filter) } }>
      <svg
        className="svg-filter-button"
        viewBox="0 0 80 80"
        xmlns="http://www.w3.org/2000/svg">

        <circle className="out-circle" cx="40" cy="40" r="38" />
        <circle className="in-circle" cx="40" cy="40" r="34" />
        <polygon className="up-triangle" points=" 40,13 36,5 44,5 " />
        <polygon className="up-triangle" points=" 40,67 36,75 44,75 " />

        <image href={`/imgs/filter-icons/${iconName}`} x="17" y="17" height="45px" width="45px" />
      </svg>

      <p className="filter-string">{filter}</p>
    </div>
  );
}
```

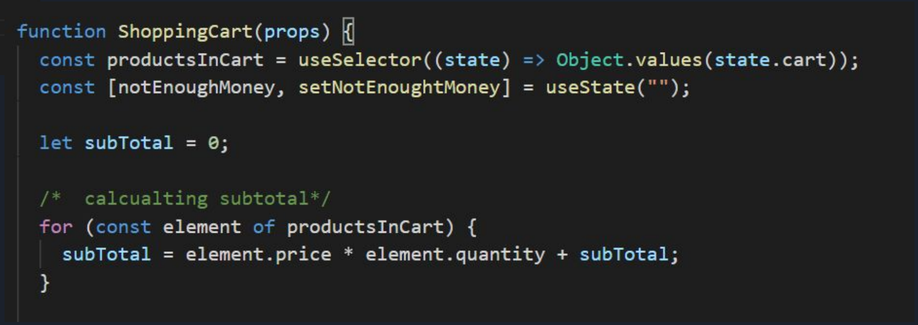


Demo Credentials
Clan: TheAbsoluteZeros
Name: Danish

Comparison Between Working with react and redux



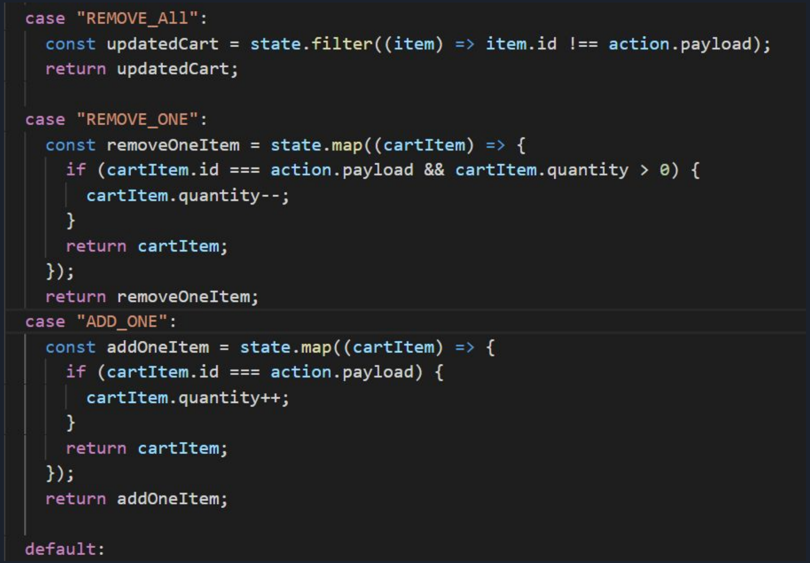
```
export default () => {
  const productsInCart1 = useSelector((state) => Object.values(state.cart));
  const allProducts = useSelector((state) => Object.values(state.products));

  const [productsInCart, setProductsInCart] = React.useState(productsInCart1);

  let subTotal = 0;
  let cartListArray=[];

    for (const element of productsInCart)  {
     const c = allProducts.find(xx => xx.id === element.productId);
      c["quantity"] = element.quantity;
      subTotal = (c.price*c.quantity)+subTotal;
      cartListArray.push(c);
    }

  function DeleteProduct (id) {
    const newList = cartListArray.filter((item) => item.id !== id);
    setProductsInCart(newList);
  }//end checkout fn

  return (
```



```
function ShoppingCart(props) {
  const productsInCart = useSelector((state) => Object.values(state.cart));
  const [notEnoughMoney, setNotEnoughtMoney] = useState("");

  let subTotal = 0;

  /*  calcualting subtotal*/
  for (const element of productsInCart) {
    subTotal = element.price * element.quantity + subTotal;
  }
```

Demo Credentials
Clan: TheAbsoluteZeros
Name: Danish

Shopping Cart Redux



```
case "REMOVE_All":
  const updatedCart = state.filter((item) => item.id !== action.payload);
  return updatedCart;

case "REMOVE_ONE":
  const removeOneItem = state.map((cartItem) => {
    if (cartItem.id === action.payload && cartItem.quantity > 0) {
      cartItem.quantity--;
    }
    return cartItem;
  });
  return removeOneItem;
case "ADD_ONE":
  const addOneItem = state.map((cartItem) => {
    if (cartItem.id === action.payload) {
      cartItem.quantity++;
    }
    return cartItem;
  });
  return addOneItem;

default:
```

Not sure maybe remove it.

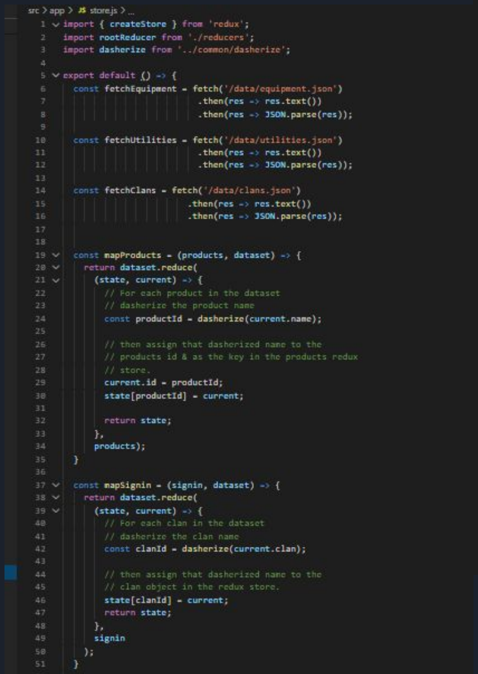
Code Snippets - Checkout Page

Refer to VSCode

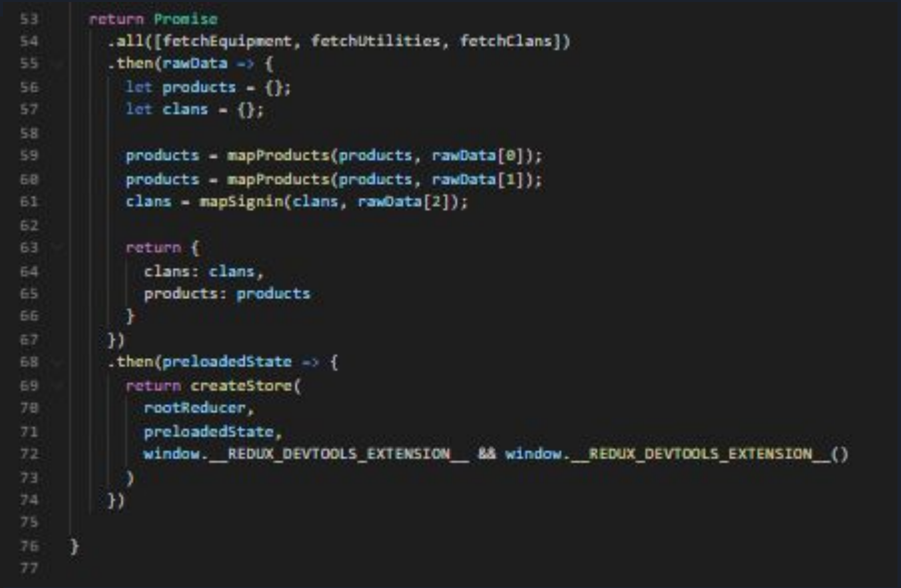
Demo Credentials
Clan: TheAbsoluteZeros
Name: Aaron

Code Snippets - Asynchronous Store

We needed to pre-load data from our JSON files, since we had no true backend



```javascript
import { createStore } from 'redux';
import rootReducer from './reducers';
import dasherize from '../common/dasherize';

export default () => {
  const fetchEquipment = fetch('/data/equipment.json')
                         .then(res => res.text())
                         .then(res => JSON.parse(res));

  const fetchUtilities = fetch('/data/utilities.json')
                         .then(res => res.text())
                         .then(res => JSON.parse(res));

  const fetchClans = fetch('/data/clans.json')
                     .then(res => res.text())
                     .then(res => JSON.parse(res));


  const mapProducts = (products, dataset) => {
    return dataset.reduce(
      (state, current) => {
        // For each product in the dataset
        // dasherize the product name
        const productId = dasherize(current.name);

        // then assign that dasherized name to the
        // products id & as the key in the products redux
        // store.
        current.id = productId;
        state[productId] = current;

        return state;
      },
      products);
  }

  const mapSignin = (signin, dataset) => {
    return dataset.reduce(
      (state, current) => {
        // For each clan in the dataset
        // dasherize the clan name
        const clanId = dasherize(current.clan);

        // then assign that dasherized name to the
        // clan object in the redux store.
        state[clanId] = current;
        return state;
      },
      signin
    );
  }
```



```javascript
  return Promise
    .all([fetchEquipment, fetchUtilities, fetchClans])
    .then(rawData => {
      let products = {};
      let clans = {};

      products = mapProducts(products, rawData[0]);
      products = mapProducts(products, rawData[1]);
      clans = mapSignin(clans, rawData[2]);

      return {
        clans: clans,
        products: products
      }
    })
    .then(preloadedState => {
      return createStore(
        rootReducer,
        preloadedState,
        window.__REDUX_DEVTOOLS_EXTENSION__ && window.__REDUX_DEVTOOLS_EXTENSION__()
      )
    })

}
```

Code Snippets - Props.children

Challenges & Pitfalls

- Redux is hard…!
- Scope creep is a thing...a bad thing.
- Daily meetings keep people on track, and prevent people from falling behind.
- Teamwork makes the dream work.

Lessons Learned

Don’t Use Google Meet for meetings…!!! (Discord / Zoom are better options)

Can’t do the Design and Technical Stuff at once…!

Setting up a Test Environment for Individual Components would have been smart.

We should have made a Flowchart at the start to outline data flow

Specify Component Inputs/Outputs Early On to Save ‘Overthinking’

Redux Exists for a Reason -> Mixing Local States and Redux becomes a real nightmare. Use ALL Redux or ALL Local States.

React tells you when you cause an infinite loop!

Anything is Possible in React!

Questions?? Comments??