Code Deliverables

1. Code Snippet for product list:

```
const products:Product[] = await client.fetch(`*[_type == 'product'][0...3]`);
  const builder = imageUrlBuilder(client);
  const urlFor = (source: SanityImageSource) => builder.image(source);
```

2. Code Snippet for individual product:

```
const { id } = useParams();
 const [product, setProduct] = useState<Product | null>(null);
 const [loading, setLoading] = useState(true);
useEffect(() => {
  if (!id) return;
  const query = `*[_type == 'product' && id == $id][0]`;
     client
     .fetch(query, { id })
     .then((data: Product) => {
       setProduct(data);
       setLoading(false);
     })
     .catch((error) => {
       console.error("Error fetching product:", error);
       setLoading(false);
    });
}, [id]);
```

3. Code Snippet for Search bar:

```
useEffect(() => {
    if (!query) return; // If there's no query, return early
   const fetchFilteredProducts = async () => {
      setLoading(true);
      try {
        // Sanity query to search for products that match the query in the name
or description
        const filterQuery = `*[_type == "product" && (name match "${query}" ||
description match "${query}")][0...12]`;
        const fetchedProducts = await client.fetch(filterQuery);
        setProducts(fetchedProducts);
      } catch (error) {
        console.error("Error fetching products:", error);
      } finally {
        setLoading(false);
    };
    fetchFilteredProducts();
  }, [query]);
```

4. Code Snippet for API integration:

```
async function uploadImageToSanity(imagePath) {
  try {
    console.log(`Uploading image: ${imagePath}`);

  const response = await fetch(imagePath);
  if (!response.ok) {
     throw new Error(`Failed to fetch image: ${imagePath}`);
  }

  const buffer = await response.arrayBuffer();
  const bufferImage = Buffer.from(buffer);

  const asset = await client.assets.upload("image", bufferImage, {
     filename: imagePath.split("/").pop(),
  });
```

```
console.log(`Image uploaded successfully: ${asset._id}`);
    return asset. id;
  } catch (error) {
    console.error("Failed to upload image:", imagePath, error);
    return null;
async function uploadProduct(product) {
 try {
    const imageId = await uploadImageToSanity(product.imagePath);
    if (imageId) {
      const document = {
        _type: "product",
        id: product.id,
        name: product.name,
        price: product.price,
        imagePath: {
          _type: "image",
          asset: {
            _ref: imageId,
          },
        },
        discountPercentage: product.discountPercentage,
        description: product.description,
        category: product.category,
        stockLevel: product.stockLevel,
      };
      const createdProduct = await client.create(document);
      console.log(
        `Product ${product.name} uploaded successfully:`,
        createdProduct
      );
    } else {
      console.log(
        `Product ${product.name} skipped due to image upload failure.`
      );
  } catch (error) {
    console.error("Error uploading product:", error);
// Api integration
```

```
async function importProducts() {
 try {
    // Fetch products from two different URLs concurrently
    const [response1, response2] = await Promise.all([
      fetch("https://template-0-beta.vercel.app/api/product"),
      fetch("https://678d1855f067bf9e24e93f90.mockapi.io/id") // Second URL here
    1);
    // Check if both responses are ok
    if (!response1.ok) {
      throw new Error(`HTTP error for URL 1! Status: ${response1.status}`);
    if (!response2.ok) {
     throw new Error(`HTTP error for URL 2! Status: ${response2.status}`);
    // Parse both responses to JSON
    const products1 = await response1.json();
    const products2 = await response2.json();
    // Combine products from both sources
    const allProducts = [...products1, ...products2];
   // Upload each product
    for (const product of allProducts) {
      await uploadProduct(product);
  } catch (error) {
    console.error("Error fetching products:", error);
importProducts();
```