

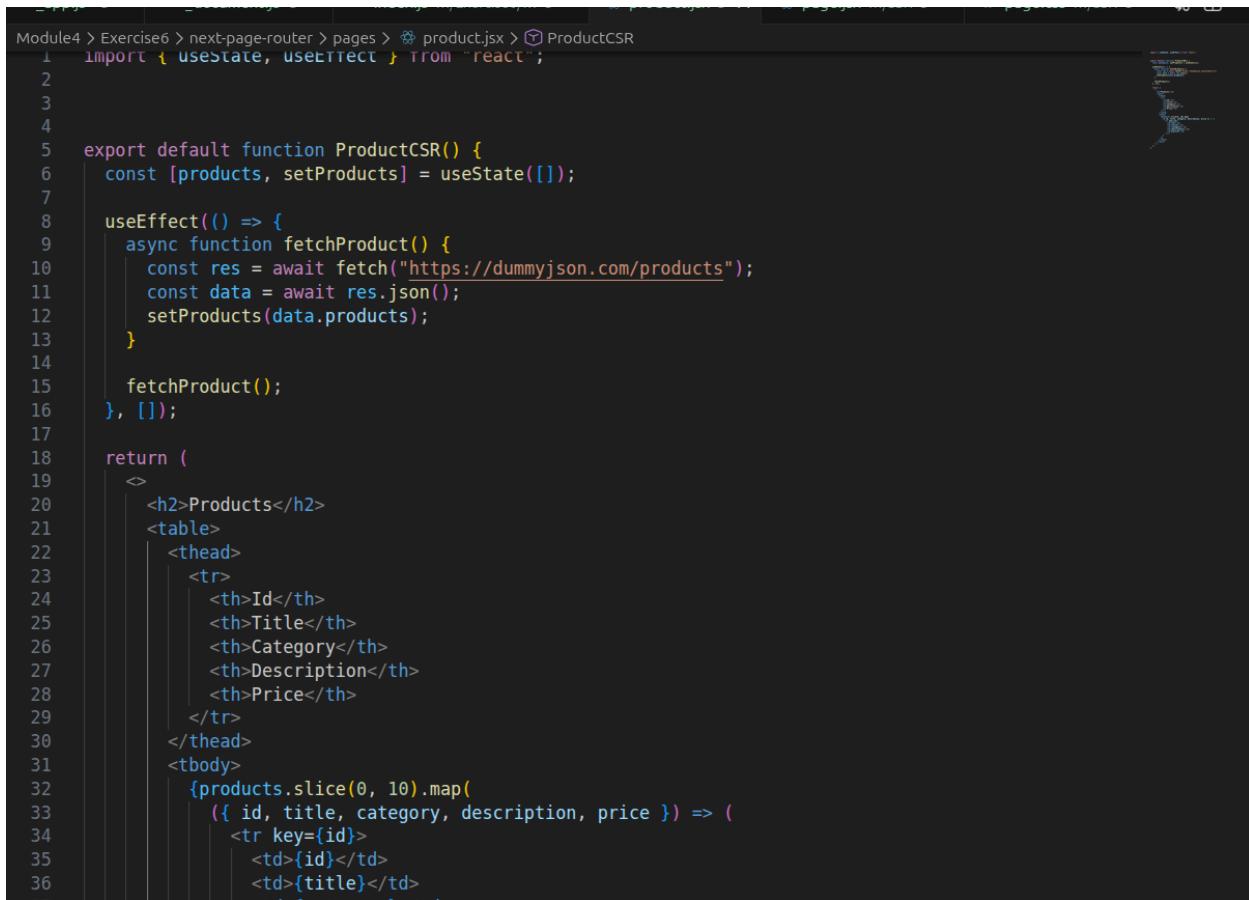
Module4

Exercise 6(NextJs Data Fetching and Styling)

1.) In Page Router repo implement examples of:

- Client-side fetching
- Server side fetching in a dynamic route using `getServerSideProps`
- Static site generation in a dynamic route using `getStaticProps` and `getStaticPaths` (implement ISR as well)

A 1.) a.)NextJS



```
Module4 > Exercise6 > next-page-router > pages > product.jsx > ProductCSR
1 import { useState, useEffect } from "react";
2
3
4
5 export default function ProductCSR() {
6   const [products, setProducts] = useState([]);
7
8   useEffect(() => {
9     async function fetchProduct() {
10       const res = await fetch("https://dummyjson.com/products");
11       const data = await res.json();
12       setProducts(data.products);
13     }
14
15     fetchProduct();
16   }, []);
17
18   return (
19     <>
20       <h2>Products</h2>
21       <table>
22         <thead>
23           <tr>
24             <th>Id</th>
25             <th>Title</th>
26             <th>Category</th>
27             <th>Description</th>
28             <th>Price</th>
29           </tr>
30         </thead>
31         <tbody>
32           {products.slice(0, 10).map(
33             ({ id, title, category, description, price }) => (
34               <tr key={id}>
35                 <td>{id}</td>
36                 <td>{title}</td>
```

Output

Products					
Id	Title	Category	Description	Price	
1	Essence Mascara Lash Princess	beauty	The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.	\$9.99	
2	Eyeshadow Palette with Mirror	beauty	The Eyeshadow Palette with Mirror offers a versatile range of eyeshadow shades for creating stunning eye looks. With a built-in mirror, it's convenient for on-the-go makeup application.	\$19.99	
3	Powder Canister	beauty	The Powder Canister is a finely milled setting powder designed to set makeup and control shine. With a lightweight and translucent formula, it provides a smooth and matte finish.	\$12.99	
4	Red Lipstick	beauty	The Red Lipstick is a classic and bold choice for adding a pop of color to your lips. With a creamy and pigmented formula, it provides a vibrant and long-lasting finish.	\$8.99	
5	Red Nail Polish	beauty	The Red Nail Polish offers a rich and glossy red hue for vibrant and polished nails. With a quick-drying formula, it provides a salon-quality finish at home.	\$49.99	
6	Calvin Klein CK One	fragrances	CK One by Calvin Klein is a classic unisex fragrance, known for its fresh and clean scent. It's a versatile fragrance suitable for everyday wear.	\$129.99	
7	Chanel Coco Noir Eau De	fragrances	Coco Noir by Chanel is an elegant and mysterious fragrance, featuring notes of grapefruit, rose, and sandalwood. Perfect for evening occasions.	\$89.99	
8	Dior J'adore	fragrances	J'adore by Dior is a luxurious and floral fragrance, known for its blend of ylang-ylang, rose, and jasmine. It embodies femininity and sophistication.	\$89.99	
9	Dolce Shine Eau de	fragrances	Dolce Shine by Dolce & Gabbana is a vibrant and fruity fragrance, featuring notes of mango, jasmine, and blonde woods. It's a joyful and youthful scent.	\$69.99	
10	Gucci Bloom Eau de	fragrances	Gucci Bloom by Gucci is a floral and captivating fragrance, with notes of tuberose, jasmine, and Rangoon creeper. It's a modern and romantic scent.	\$79.99	

b.) NextJs

```
Module4 > Exercise6 > next-page-router > pages > product-ssr > [id].jsx > ProductPage
1  export default function ProductPage({ product }) {
2    if (!product) {
3      return (
4        <div className="min-h-screen flex items-center justify-center bg-gray-100">
5          <h2 className="text-2xl font-semibold text-red-500">
6            Product not found
7          </h2>
8        </div>
9      );
10    }
11
12    return (property) HTMLAttributes<HTMLDivElement>.className?: string
13    <div className="min-h-screen bg-gradient-to-br from-gray-100 to-gray-200 flex items-center justif
14
15      <div className="max-w-2xl w-full bg-white rounded-2xl shadow-xl p-8 transition-transform hover:
16
17        <h1 className="text-3xl font-bold text-gray-800 mb-2">
18          {product.title}
19        </h1>
20
21        <span className="inline-block bg-blue-100 text-blue-600 text-sm font-medium px-3 py-1 rounded
22          {product.category}
23        </span>
24
25        <p className="text-gray-600 leading-relaxed mb-6">
26          {product.description}
27        </p>
28
29        <div className="flex items-center justify-between border-t pt-4">
30          <span className="text-lg font-medium text-gray-500">
31            Price
32          </span>
33
34          <span className="text-2xl font-bold text-green-600">
35            ${product.price}
36          </span>

```

Output

Essence Mascara Lash Princess

beauty

The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.

Price

\$9.99

c.) NextJs

```
Module4 > Exercise6 > next-page-router > pages > product-isr > [id].jsx > ProductPage
  1 import styles from '../../styles/product.module.css'
  2 export async function getStaticPaths() {
  3   const res = await fetch("https://dummyjson.com/products");
  4   const { products } = await res.json();
  5
  6   const paths = products.map((product) => ({
  7     params: { id: product.id.toString() },
  8   }));
  9
 10  return { paths, fallback: false };
 11}
 12
 13 export async function getStaticProps({ params }) {
 14   const { id } = params;
 15
 16   const res = await fetch(`https://dummyjson.com/products/${id}`);
 17   const product = await res.json();
 18
 19   return {
 20     props: { product },
 21     revalidate: 60,
 22   };
 23 }
 24
 25 export default function ProductPage({ product }) {
 26   return (
 27     <>
 28       <div className={styles.product}>
 29         <h2>{product.title}</h2>
 30         <h3>{product.category}</h3>
 31         <p>{product.description}</p>
 32         <span>Price: ${product.price}</span>
 33       </div>
 34     </>
 35   );
 36 }
```

Output

Essence Mascara Lash Princess

beauty

The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.

Price: \$9.99

2.) In App Router repo implement examples of:

- d. Client-side fetching.
- e. Server components.
- f. ISR using generateStaticParams.

A 2.) a.) NextJS

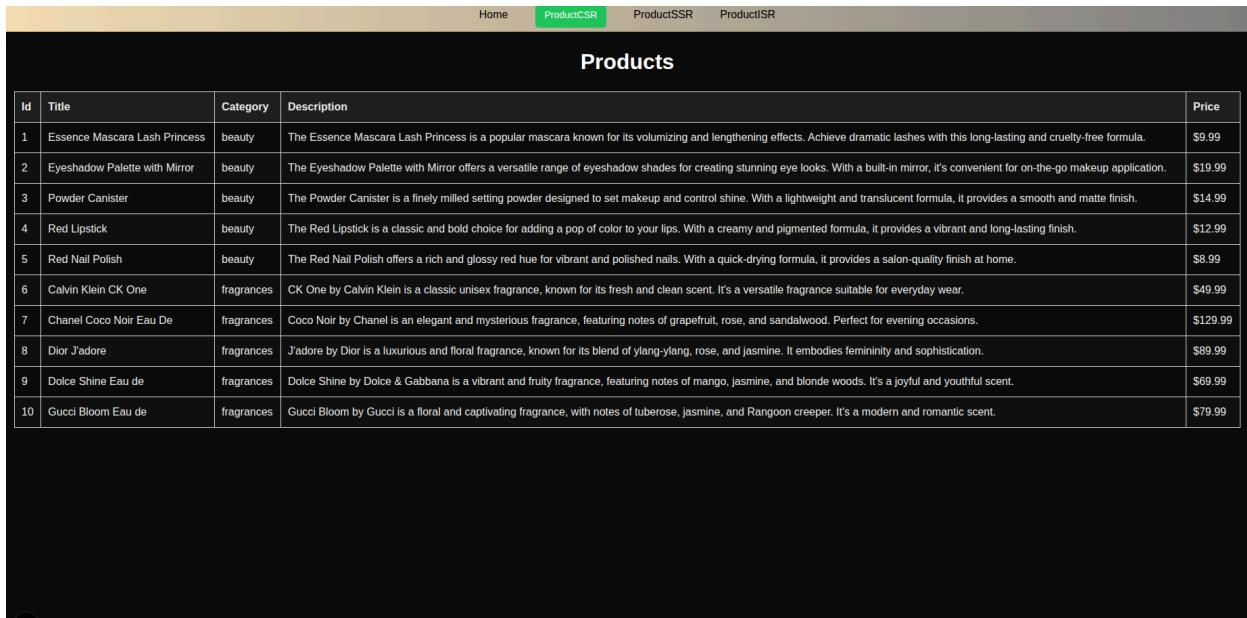
```
export default function ProductCSR() {
  const [products, setProducts] = useState([]);

  useEffect(() => {
    async function fetchProduct() {
      const res = await fetch("https://dummyjson.com/products");
      const data = await res.json();
      setProducts(data.products);
    }

    fetchProduct();
  }, []);

  return (
    <Container>
      <h2>Products</h2>
      <Table>
        <thead>
          <tr>
            <th>Id</th>
            <th>Title</th>
            <th>Category</th>
            <th>Description</th>
            <th>Price</th>
          </tr>
        </thead>
        <tbody>
          {products.slice(0, 10).map(
            ({ id, title, category, description, price }) => (
              <tr key={id}>
                <td>{id}</td>
                <td>{title}</td>
                <td>{category}</td>
                <td>{description}</td>
                <td>${price}</td>
              </tr>
            )
          )}
        </tbody>
      </Table>
    </Container>
  );
}
```

Output



The screenshot shows a web-based application interface. At the top, there is a navigation bar with four items: "Home", "ProductCSR" (which is highlighted in green), "ProductSSR", and "ProductISR". Below the navigation bar, the word "Products" is centered in a bold, black font. Underneath this title is a table with ten rows of data. The table has columns for "Id", "Title", "Category", "Description", and "Price". Each row contains a product entry with its details. The last row of the table is partially cut off at the bottom.

Id	Title	Category	Description	Price
1	Essence Mascara Lash Princess	beauty	The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.	\$9.99
2	Eyeshadow Palette with Mirror	beauty	The Eyeshadow Palette with Mirror offers a versatile range of eyeshadow shades for creating stunning eye looks. With a built-in mirror, it's convenient for on-the-go makeup application.	\$19.99
3	Powder Canister	beauty	The Powder Canister is a finely milled setting powder designed to set makeup and control shine. With a lightweight and translucent formula, it provides a smooth and matte finish.	\$14.99
4	Red Lipstick	beauty	The Red Lipstick is a classic and bold choice for adding a pop of color to your lips. With a creamy and pigmented formula, it provides a vibrant and long-lasting finish.	\$12.99
5	Red Nail Polish	beauty	The Red Nail Polish offers a rich and glossy red hue for vibrant and polished nails. With a quick-drying formula, it provides a salon-quality finish at home.	\$8.99
6	Calvin Klein CK One	fragrances	CK One by Calvin Klein is a classic unisex fragrance, known for its fresh and clean scent. It's a versatile fragrance suitable for everyday wear.	\$49.99
7	Chanel Coco Noir Eau De	fragrances	Coco Noir by Chanel is an elegant and mysterious fragrance, featuring notes of grapefruit, rose, and sandalwood. Perfect for evening occasions.	\$129.99
8	Dior J'adore	fragrances	J'adore by Dior is a luxurious and floral fragrance, known for its blend of ylang-ylang, rose, and jasmine. It embodies femininity and sophistication.	\$89.99
9	Dolce Shine Eau de	fragrances	Dolce Shine by Dolce & Gabbana is a vibrant and fruity fragrance, featuring notes of mango, jasmine, and blonde woods. It's a joyful and youthful scent.	\$69.99
10	Gucci Bloom Eau de	fragrances	Gucci Bloom by Gucci is a floral and captivating fragrance, with notes of tuberose, jasmine, and Rangoon creeper. It's a modern and romantic scent.	\$79.99

b.) NextJs

```
Module4 > Exercise6 > next-app-router > app > Product > SSR > page.jsx > ...
1  export default async function ProductSSR() {
2    const res = await fetch("https://dummyjson.com/products", {
3      cache: "no-store",
4    });
5
6    const { products } = await res.json();
7
8    return (
9      <div className="min-h-screen bg-gradient-to-br from-indigo-50 via-white to-pink-50 dark:from-gray-100">
10        <div className="max-w-7xl mx-auto">
11          <h2 className="text-4xl font-extrabold text-indigo-900 dark:text-indigo-200 mb-8">
12            Products Overview
13          </h2>
14
15          <div className="overflow-hidden rounded-3xl shadow-2xl border border-gray-200 dark:border-gray-100">
16            <div className="overflow-x-auto">
17              <table className="min-w-full bg-white dark:bg-gray-800 text-sm">
18                <thead className="bg-indigo-100 dark:bg-indigo-700">
19                  <tr>
20                    <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-200">
21                      ID
22                    </th>
23                    <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-200">
24                      Title
25                    </th>
26                    <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-200">
27                      Category
28                    </th>
29                    <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-200">
30                      Description
31                    </th>
32                    <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-200">
33                      Price
34                    </th>
35                  </tr>
36                </thead>
37
38                <tbody className="divide-y divide-gray-200 dark:divide-gray-600">
39                  {products.slice(0, 10).map(
40                    (product) =>
41                      <tr key={product.id}>
42                        <td>{product.id}</td>
43                        <td>{product.title}</td>
44                        <td>{product.category}</td>
45                        <td>{product.description}</td>
46                        <td>${product.price}</td>
47                      </tr>
48                  )}
49                </tbody>
50              </table>
51            </div>
52          </div>
53        </div>
54      </div>
55    )
56  )
57)
```

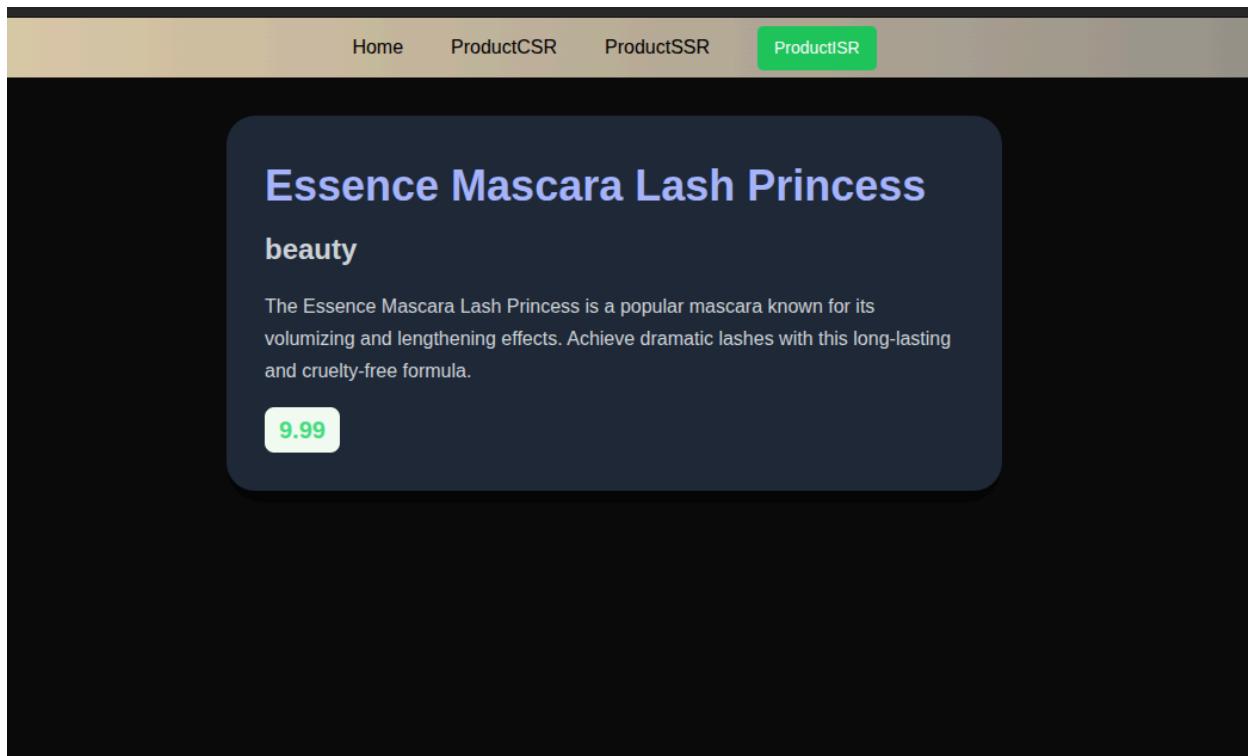
Output

ID	Title	Category	Description	Price
#1	Essence Mascara Lash Princess	beauty	The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.	\$9.99
#2	Eyeshadow Palette with Mirror	beauty	The Eyeshadow Palette with Mirror offers a versatile range of eyeshadow shades for creating stunning eye looks. With a built-in mirror, it's convenient for on-the-go makeup application.	\$19.99
#3	Powder Canister	beauty	The Powder Canister is a finely milled setting powder designed to set makeup and control shine. With a lightweight and translucent formula, it provides a smooth and matte finish.	\$14.99
#4	Red Lipstick	beauty	The Red Lipstick is a classic and bold choice for adding a pop of color to your lips. With a creamy and pigmented formula, it provides a vibrant and long-lasting finish.	\$12.99
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#7	Chanel Coco Noir Eau De	fragrances	Coco Noir by Chanel is an elegant and mysterious fragrance, featuring notes of grapefruit, rose, and sandalwood. Perfect for evening occasions.	\$129.99
#8	Dior J'adore	fragrances	J'adore by Dior is a luxurious and floral fragrance, known for its blend of ylang-ylang, rose, and jasmine. It embodies femininity and sophistication.	\$89.99
#9	Dolce Shine Eau de	fragrances	Dolce Shine by Dolce & Gabbana is a vibrant and fruity fragrance, featuring notes of mango, jasmine, and blonde woods. It's a joyful and youthful scent.	\$69.99
#10	Gucci Bloom Eau de	fragrances	Gucci Bloom by Gucci is a floral and captivating fragrance, with notes of tuberose, jasmine, and Rangoon creeper. It's a modern and romantic scent.	\$79.99

c.) NextJs

```
Module4 > Exercise6 > next-app-router > app > Product > ISR > [id] > page.jsx > ProductISR
1 import styles from './productISR.module.css'
2 export async function generateStaticParams() {
3     const data=await fetch('https://dummyjson.com/products');
4     const {products}=await data.json();
5
6     return products.map((product)=>{
7         id:String(product.id)
8     })
9 }
10 export default async function ProductISR({params}) {
11     const {id}=await params
12     const data=await fetch(`https://dummyjson.com/products/${id}`,{next:{revalidate:60}});
13     const product=await data.json();
14
15
16     return(
17         <div className={styles.product}>
18             <h2>{product.title}</h2>
19             <h2>{product.category}</h2>
20             <p>{product.description}</p>
21             <span>{product.price}</span>
22         </div>
23     );
24 }
```

Output



3.) Use Global css for maintaining fonts globally and maintain font-size

A3.)

```
Module4 > Exercise6 > next-app-router > app > # globals.css > {} @media (prefers-color-scheme: dark)
50
39  h1 { font-size: 2.5rem; font-weight: 700; margin-bottom: 1rem; }
40  h2 { font-size: 2rem; font-weight: 600; margin-bottom: 0.75rem; }
41  h3 { font-size: 1.75rem; font-weight: 500; margin-bottom: 0.5rem; }
42  h4 { font-size: 1.5rem; font-weight: 500; margin-bottom: 0.5rem; }
43  h5 { font-size: 1.25rem; font-weight: 400; margin-bottom: 0.25rem; }
44  h6 { font-size: 1rem; font-weight: 400; margin-bottom: 0.25rem; }
45
46  p, span, td, th, li {
47    font-size: 1rem;
48  }
49
50  table {
51    font-family: inherit;
52    font-size: 1rem;
53    border-collapse: collapse;
54  }
55
56  thead {
57    background-color: ■#f4f4f4;
58  }
59
60  tbody tr:nth-child(even) {
61    background-color: ■#f9f9f9;
62  }
63
64  tbody tr:hover {
65    background-color: ■#eaeaea;
66 }
```

4.) Use modular css for maintaining font color maintenance in every module. Maintain css variables.

A4.)

```
Module4 > Exercise6 > next-app-router > app > Product > ISR > [id] > # productISR.module.css > {} @media (prefers-color-scheme: dark) >
1  :root {
2    --text-primary: #1e3a8a;
3    --text-secondary: #4b5563;
4    --text-accent: #ec4899;
5    --text-success: #16a34a;
6    --bg-card: #ffffff;
7    --bg-hover: #f0f4ff;
8  }
9
10 @media (prefers-color-scheme: dark) {
11   :root [
12     --text-primary: #a5b4fc;
13     --text-secondary: #d1d5db;
14     --text-accent: #f9a8d4;
15     --text-success: #4ade80;
16     --bg-card: #1f2937;
17     --bg-hover: #374151;
18   ]
19 }
20
21 .product {
22   max-width: 650px;
23   margin: 2rem auto;
24   padding: 2rem;
25   background-color: var(--bg-card);
26   border-radius: 1.5rem;
27   box-shadow: 0 10px 25px rgba(0, 0, 0, 0.1);
28   font-family: Arial, Helvetica, sans-serif;
29   transition: transform 0.3s ease, box-shadow 0.3s ease, background-color 0.3s ease;
30 }
31
32 .product:hover {
33   transform: translateY(-5px);
34   box-shadow: 0 15px 35px rgba(0, 0, 0, 0.15);
35   background-color: var(--bg-hover);
36 }
```

```
Module4 > Exercise6 > next-app-router > app > Product > ISR > [id] > page.jsx > ProductISR
1 import styles from './productISR.module.css'
2 export async function generateStaticParams() {
3   const data=await fetch('https://dummyjson.com/products');
4   const {products}=await data.json();
5
6   return products.map((product)=>({
7     id:String(product.id)
8   }));
9 }
10 export default async function ProductISR({params}) {
11   const {id}=await params;
12   const data=await fetch(`https://dummyjson.com/products/${id}`,{next:{revalidate:60}});
13   const product=await data.json();
14
15   return(
16     <div className={styles.product}>
```

5.) Use hover, focus and utility classes in server side fetched modules from tailwind CSS.

A5.)

```
return (
  <div className="min-h-screen bg-gradient-to-br from-gray-100 to-gray-200 flex items-center justify-center p-8">
    <div className="max-w-2xl w-full bg-white rounded-2xl shadow-xl p-8 transition-transform hover:scale-105">
      <h1 className="text-3xl font-bold text-gray-800 mb-2">
        {product.title}
      </h1>

      <span className="inline-block bg-blue-100 text-blue-600 text-sm font-medium px-3 py-1 rounded-full">
        {product.category}
      </span>

      <p className="text-gray-600 leading-relaxed mb-6">
        {product.description}
      </p>

      <div className="flex items-center justify-between border-t pt-4">
        <span className="text-lg font-medium text-gray-500">
          Price
        </span>

        <span className="text-2xl font-bold text-green-600">
          ${product.price}
        </span>
      </div>
    </div>
  </div>
```

Essence Mascara Lash Princess

beauty

The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.

Price

\$9.99

6.) Create a styled-component of table using CSS in JS inside client side fetched module.

A6.)

```
1  "use client";
2
3  import { useState, useEffect } from "react";
4  import styled from "styled-components";
5
6  const Container = styled.div`
7    padding: 20px;
8    font-family: Arial, sans-serif;
9
10   h2 {
11     text-align: center;
12     margin-bottom: 20px;
13     color: #fff;
14   }
15 `;
16
17 const Table = styled.table`
18   width: 100%;
19   border-collapse: collapse;
20   text-align: left;
21
22   th, td {
23     padding: 10px;
24     border: 1px solid #ddd;
25   }
26
27 `;
28 `;
29 `;
```