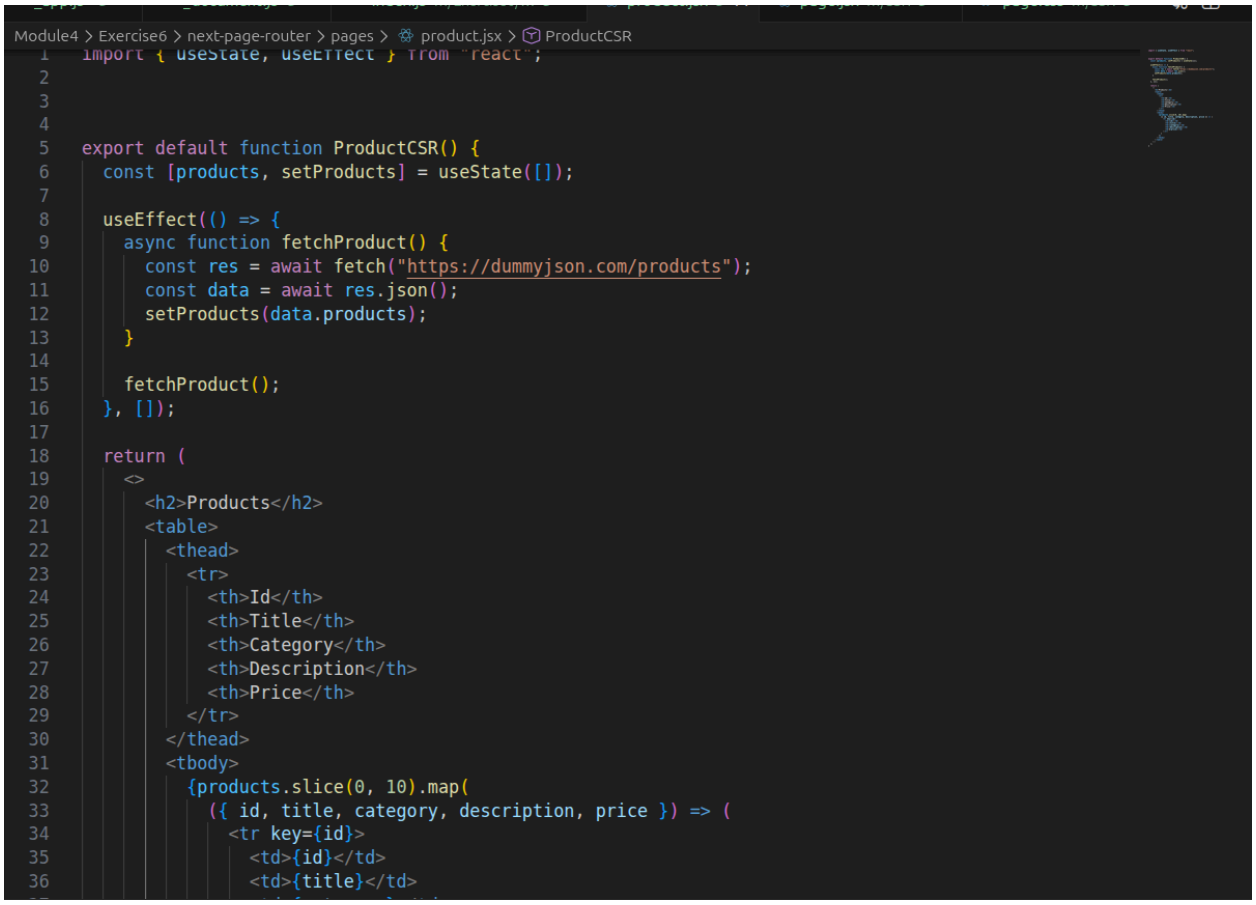
Module4

Exercise 6(NextJs Data Fetching and Styling)

1.) In Page Router repo implement examples of:
   a. Client-side fetching
   b. Server side fetching in a dynamic route using getServerSideProps
   c. Static site generation in a dynamic route using getStaticProps and getStaticPaths (implement ISR as well)

A 1.) a.)NextJS



Output

Products

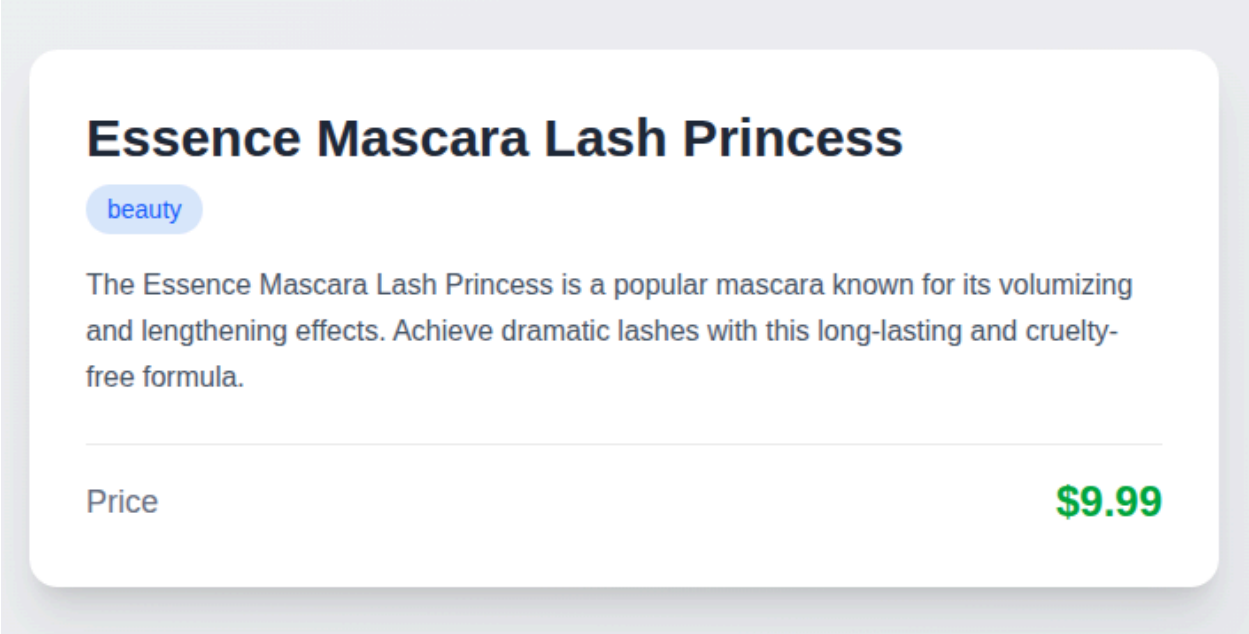
Id	Title	Category	Description	Price
1	Essence Mascara Lash Princess	beauty	The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.	$9.99
2	Eyeshadow Palette with Mirror	beauty	The 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.	$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-page-router > pages > product-ssr > [id].jsx > ProductPage

```jsx
export default function ProductPage({ product }) {
  if (!product) {
    return (
      <div className="min-h-screen flex items-center justify-center bg-gray-100">
        <h2 className="text-2xl font-semibold text-red-500">
          Product not found
        </h2>
      </div>
    );
  }

  return (property) HTMLAttributes<HTMLDivElement>.className?: string
    <div className="min-h-screen bg-gradient-to-br from-gray-100 to-gray-200 flex items-center justif

      <div className="max-w-2xl w-full bg-white rounded-2xl shadow-xl p-8 transition-transform hover:

        <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
          {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>
```

Output

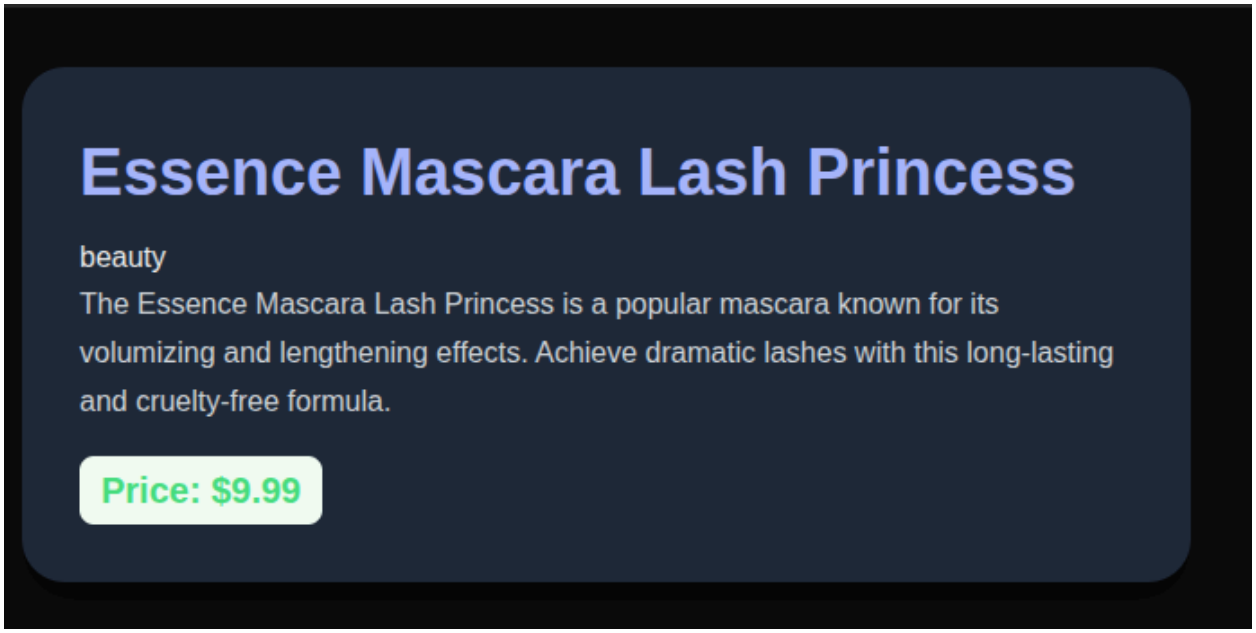

Essence Mascara Lash Princess
beauty
The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achieve dramatic lashes with this long-lasting and cruelty-free formula.
Price
$9.99

c.) NextJs

Module4 > Exercise6 > next-page-router > pages > product-isr > [id].jsx > ProductPage

```jsx
import styles from '../../styles/product.module.css'
export async function getStaticPaths() {
  const res = await fetch("https://dummyjson.com/products");
  const { products } = await res.json();

  const paths = products.map((product) => ({
    params: { id: product.id.toString() },
  }));

  return { paths, fallback: false };
}

export async function getStaticProps({ params }) {
  const { id } = params;

  const res = await fetch(`https://dummyjson.com/products/${id}`);
  const product = await res.json();

  return {
    props: { product },
    revalidate: 60,
  };
}

export default function ProductPage({ product }) {
  return (
    <>
      <div className={styles.product}>
        <h2>{product.title}</h2>
        <h3>{product.category}</h3>
        <p>{product.description}</p>
        <span>Price: ${product.price}</span>
      </div>
    </>
  );
}
```

Output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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

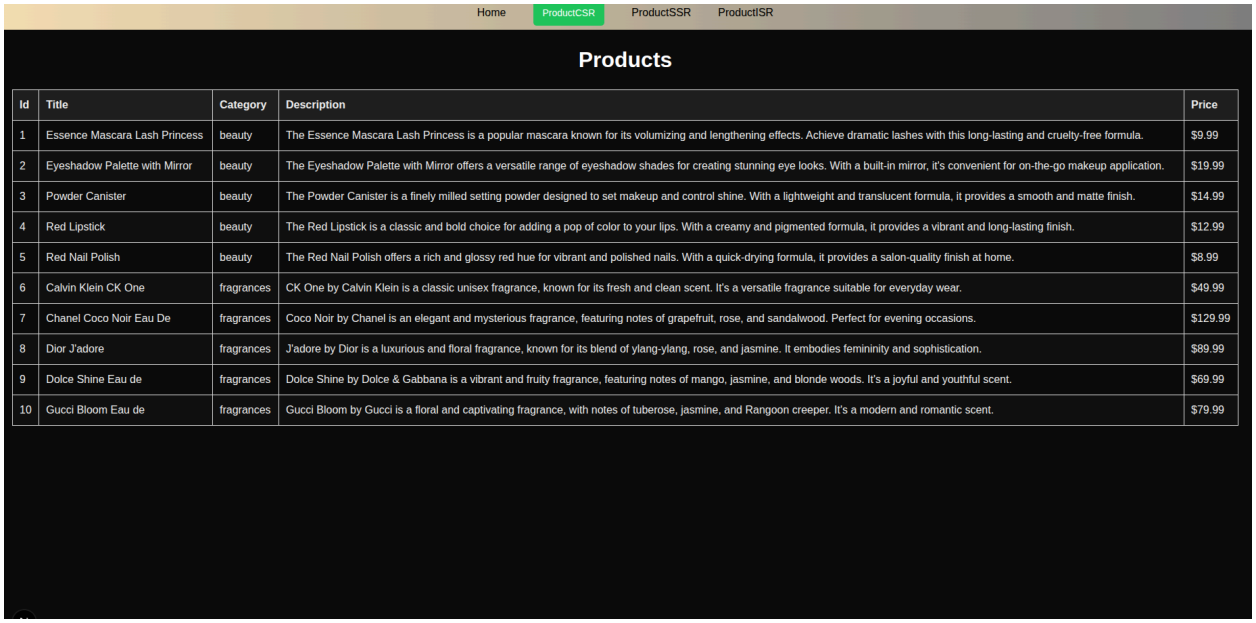
```
export default function ProductCSR() {
  const [products, setProducts] = useState([]);

  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>
```

Output


Home
ProductCSR
ProductSSR
ProductISR
Products
Id
Title
Category
Description
Price
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b.) NextJs

Module4 > Exercise6 > next-app-router > app > Product > SSR > page.jsx > ...

```jsx
export default async function ProductSSR() {
  const res = await fetch("https://dummyjson.com/products", {
    cache: "no-store",
  });

  const { products } = await res.json();

  return (
    <div className="min-h-screen bg-gradient-to-br from-indigo-50 via-white to-pink-50 dark:from-gray
      <div className="max-w-7xl mx-auto">
        <h2 className="text-4xl font-extrabold text-indigo-900 dark:text-indigo-200 mb-8">
          Products Overview
        </h2>

        <div className="overflow-hidden rounded-3xl shadow-2xl border border-gray-200 dark:border-gra
          <div className="overflow-x-auto">
            <table className="min-w-full bg-white dark:bg-gray-800 text-sm">
              <thead className="bg-indigo-100 dark:bg-indigo-700">
                <tr>
                  <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-2
                    ID
                  </th>
                  <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-2
                    Title
                  </th>
                  <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-2
                    Category
                  </th>
                  <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-2
                    Description
                  </th>
                  <th className="px-6 py-4 text-left font-semibold text-indigo-700 dark:text-indigo-2
                    Price
                  </th>
                </tr>
              </thead>

              <tbody className="divide-y divide-gray-200 dark:divide-gray-600">
                {products.slice(0, 10).map(
```

Output

Home ProductCSR ProductSSR ProductISR

Products Overview

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
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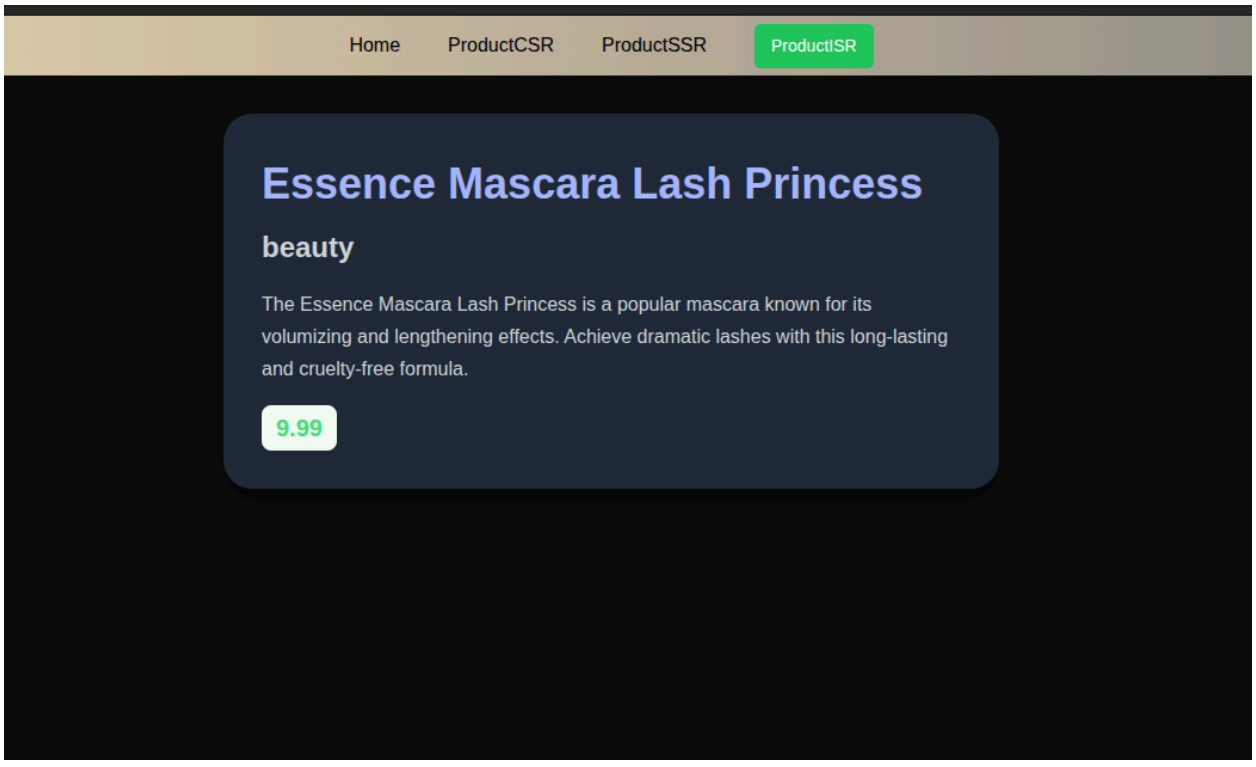
c.) NextJs

Module4 > Exercise6 > next-app-router > app > Product > ISR > [id] > page.jsx > ProductISR

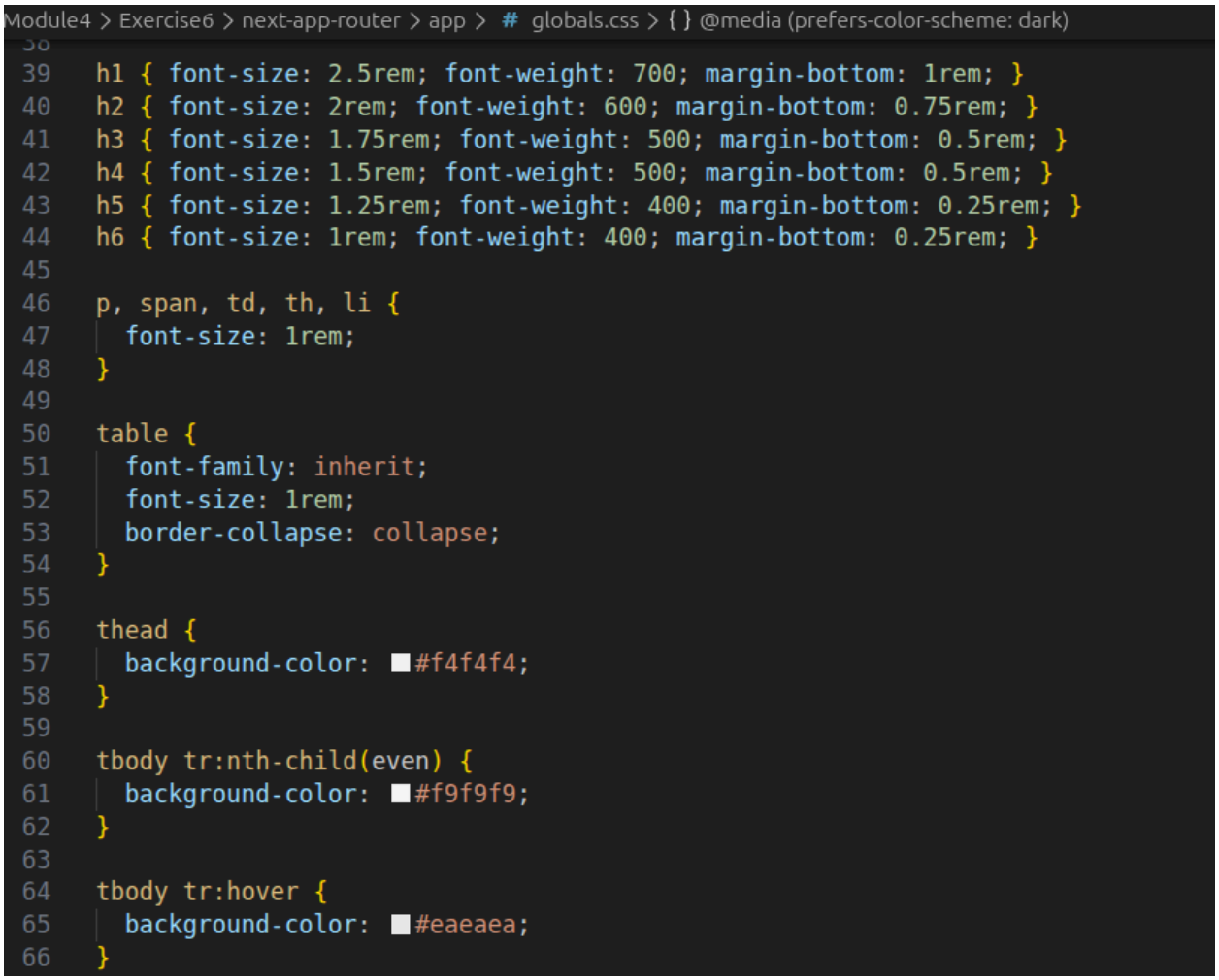
```jsx
import styles from './productISR.module.css'
export async function generateStaticParams() {
    const data=await fetch('https://dummyjson.com/products');
    const {products}=await data.json();

    return products.map((product)=>({
        id:String(product.id)
    }))
}
export default async function ProductISR({params}) {
    const {id}=await params
    const data=await fetch(`https://dummyjson.com/products/${id}`,{next:{revalidate:60}});
    const product=await data.json();


    return(
        <div className={styles.product}>
            <h2>{product.title}</h2>
            <h2>{product.category}</h2>
            <p>{product.description}</p>
            <span>{product.price}</span>
        </div>
    );
}
```

Output



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

A3.)



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) >

```css
:root {
  --text-primary: #1e3a8a;
  --text-secondary: #4b5563;
  --text-accent: #ec4899;
  --text-success: #16a34a;
  --bg-card: #ffffff;
  --bg-hover: #f0f4ff;
}

@media (prefers-color-scheme: dark) {
  :root {
    --text-primary: #a5b4fc;
    --text-secondary: #d1d5db;
    --text-accent: #f9a8d4;
    --text-success: #4ade80;
    --bg-card: #1f2937;
    --bg-hover: #374151;
  }
}

.product {
  max-width: 650px;
  margin: 2rem auto;
  padding: 2rem;
  background-color: var(--bg-card);
  border-radius: 1.5rem;
  box-shadow: 0 10px 25px rgba(0, 0, 0, 0.1);
  font-family: Arial, Helvetica, sans-serif;
  transition: transform 0.3s ease, box-shadow 0.3s ease, background-color 0.3s ease;
}

.product:hover {
  transform: translateY(-5px);
  box-shadow: 0 15px 35px rgba(0, 0, 0, 0.15);
  background-color: var(--bg-hover);
}
```

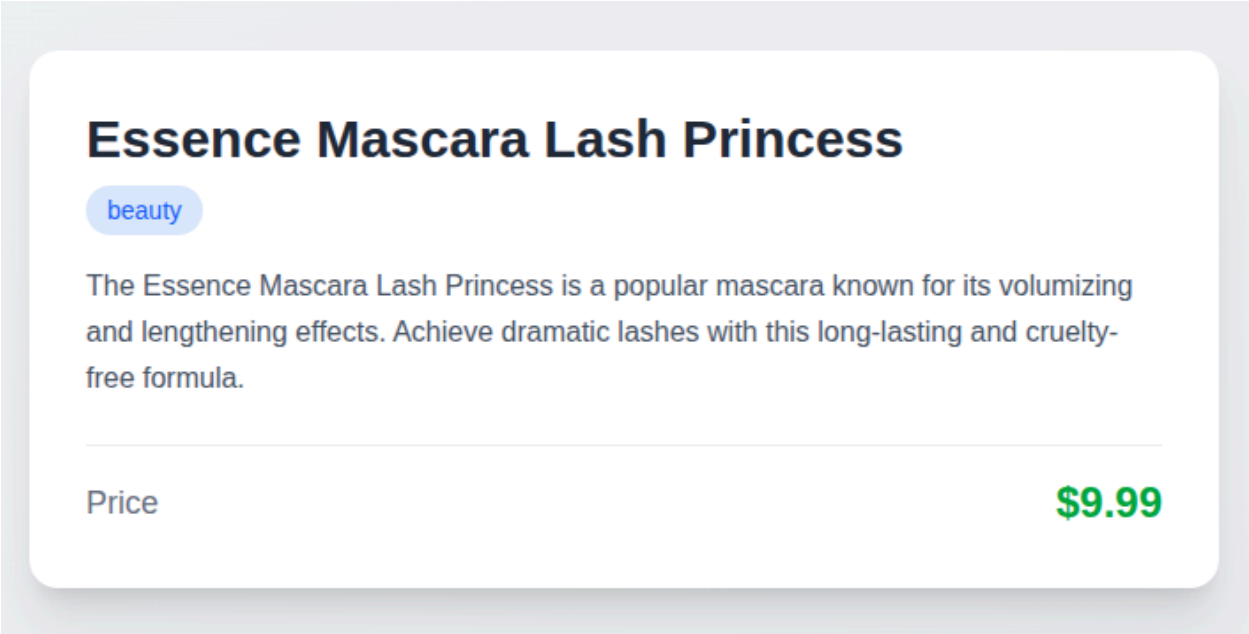
Module4 > Exercise6 > next-app-router > app > Product > ISR > [id] > page.jsx > ProductISR

```jsx
import styles from './productISR.module.css'
export async function generateStaticParams() {
    const data=await fetch('https://dummyjson.com/products');
    const {products}=await data.json();

    return products.map((product)=>({
        id:String(product.id)
    }))
}
export default async function ProductISR({params}) {
    const {id}=await params
    const data=await fetch(`https://dummyjson.com/products/${id}`,{next:{revalidate:60}});
    const product=await data.json();


    return(
        <div className={styles.product}>
```

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

A5.)

```
eturn (
 <div className="min-h-screen bg-gradient-to-br from-gray-100 to-gray-200 flex items-center justify-
   <div className="max-w-2xl w-full bg-white rounded-2xl shadow-xl p-8 transition-transform hover:sc
     <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-f
       {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>
```



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

A6.)

```
"use client";

import { useState, useEffect } from "react";
import styled from "styled-components";

const Container = styled.div`
  padding: 20px;
  font-family: Arial, sans-serif;

  h2 {
    text-align: center;
    margin-bottom: 20px;
    color: #fff;
  }
`;

const Table = styled.table`
  width: 100%;
  border-collapse: collapse;
  text-align: left;

  th, td {
    padding: 10px;
    border: 1px solid #ddd;
  }


`;

```