Low-Level Document for Skillex Online Learning Platform

1 Introduction

This document provides a detailed overview of the Skillex online learning platform, focusing on the low-level components, interactions, and code snippets.

2 Component Breakdown

2.1 Frontend (React)

2.1.1 Header Component

```
import React, { useState, useEffect } from "react";
import "../Header/Header.css";
import bars from "../../assets/bars.png";

const Header = () => {
  const [menu, setMenu] = useState(false);
  const [color, setColor] = useState(false);
  const handleClick = () => {
    setMenu(!menu);
  };
  useEffect(() => {
    window.addEventListener("scroll", () => {
      setColor(window.scrollY > 50);
    });
  }, []);
  return (
    <div className={`container ${color ? "color" : ""}`}>
      <h2 className="Logo">SKILLEX</h2>
      <img className="bars" src={bars} onClick={handleClick} alt="" />
      <ul className={menu ? "menuu" : ""}>
        <li>Home</li>
        <li>About</li>
        <li>Courses</li>
```

```jsx
        <li>Teacher</li>
        <li>Contact</li>
      </ul>
      <button className="signup">Sign Up</button>
    </div>
  );
};

export default Header;
```

2.1.2 Courses Component

```jsx
import React from "react";
import "../Courses/Courses.css";
import online from "../../assets/onlinecourse.jpg";

const Courses = () => {
  return (
    <div className="courses">
      <div className="left-c">
        <img src={online} alt="" />
      </div>
      <div className="right-c">
        <h5>
          We provide the best <span>online courses</span>
        </h5>
        <span>
          Unlock your potential with our comprehensive online courses. Dive into
          a world of knowledge at your own pace, from anywhere, anytime. Elevate
          your skills and career prospects with our expertly curated content.
        </span>
        <button>Know More</button>
      </div>
    </div>
  );
};

export default Courses;
```

2.2 Backend (API Server)

2.2.1 API Endpoints

```js
const express = require('express');
const app = express();
```

```
const port = 3000;

app.get('/api/courses', (req, res) => {
  // Fetch and return the list of courses from the database
});

app.get('/api/categories', (req, res) => {
  // Fetch and return the list of categories from the database
});

app.get('/api/popular-courses', (req, res) => {
  // Fetch and return the list of popular courses from the database
});

app.get('/api/instructors', (req, res) => {
  // Fetch and return instructor information from the database
});

app.get('/api/questions', (req, res) => {
  // Fetch and return FAQ data from the database
});

app.listen(port, () => {
  console.log(`Server is running on http://localhost:${port}`);
});
```

2.3   Database

2.3.1   Data Models

```
// Course Schema
{
  "_id": "ObjectId",
  "name": "String",
  "description": "String",
  "image": "String",
  "category": "String",
  "instructor": "String"
}

// Category Schema
{
  "_id": "ObjectId",
  "name": "String",
  "image": "String"
```

```
}

// Popular Course Schema
{
  "_id": "ObjectId",
  "courseId": "ObjectId"
}

// Instructor Schema
{
  "_id": "ObjectId",
  "name": "String",
  "bio": "String",
  "image": "String"
}

// FAQ Schema
{
  "_id": "ObjectId",
  "question": "String",
  "answer": "String"
}
```
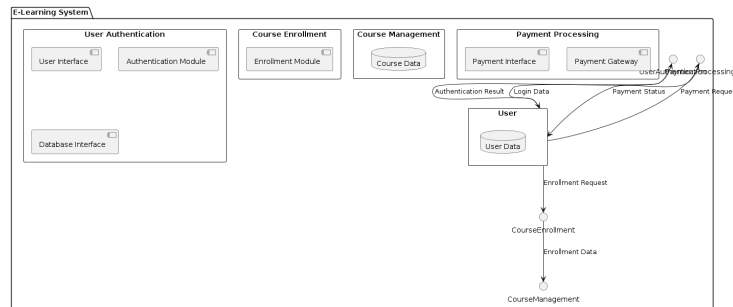
3 Data Flow

Figure 1: Data Flow in Skillex Platform

4 Detailed Component Interactions

4.1 Header Component

The Header component provides navigation links and handles scrolling effects.

4.2   Courses Component

The Courses component displays a list of online courses with detailed descriptions and images.

5   Conclusion

This low-level document provides a detailed breakdown of the components, interactions, and code snippets within the Skillex online learning platform. It serves as a comprehensive guide for developers and stakeholders involved in the project.