

Turf Management System

React • React Router • Formik • Yup • json-server

db.json

```
{
  "users": [
    { "id": 1, "name": "Admin", "email": "admin@turf.com", "password": "admin123",
      "role": "admin" },
    { "id": 2, "name": "John Doe", "email": "john@user.com", "password": "user123",
      "role": "user" }
  ],
  "turfs": [
    { "id": 1, "name": "Green Field", "location": "Hyderabad", "price": 500, "image":
      "https://via.placeholder.com/300x200/4CAF50/FFFFFF?text=Green+Field" },
    { "id": 2, "name": "City Turf", "location": "Bangalore", "price": 700, "image":
      "https://via.placeholder.com/300x200/2196F3/FFFFFF?text=City+Turf" },
    { "id": 3, "name": "Royal Turf", "location": "Mumbai", "price": 900, "image":
      "https://via.placeholder.com/300x200/9C27B0/FFFFFF?text=Royal+Turf" },
    { "id": 4, "name": "Elite Turf", "location": "Delhi", "price": 1100, "image":
      "https://via.placeholder.com/300x200/00BCD4/FFFFFF?text=Elite+Turf" },
    { "id": 5, "name": "Premier Turf", "location": "Chennai", "price": 1300, "image":
      "https://via.placeholder.com/300x200/009688/FFFFFF?text=Premier+Turf" },
    { "id": 6, "name": "Luxury Turf", "location": "Kolkata", "price": 1500, "image":
      "https://via.placeholder.com/300x200/00897B/FFFFFF?text=Luxury+Turf" },
    { "id": 7, "name": "Prestige Turf", "location": "Jaipur", "price": 1700, "image":
      "https://via.placeholder.com/300x200/00796B/FFFFFF?text=Prestige+Turf" },
    { "id": 8, "name": "Elite Club Turf", "location": "Lucknow", "price": 1900, "image":
      "https://via.placeholder.com/300x200/00695C/FFFFFF?text=Elite+Club+Turf" },
    { "id": 9, "name": "Royal Golf Turf", "location": "Bhopal", "price": 2100, "image":
      "https://via.placeholder.com/300x200/00594C/FFFFFF?text=Royal+Golf+Turf" },
    { "id": 10, "name": "Premier Golf Turf", "location": "Patna", "price": 2300, "image":
      "https://via.placeholder.com/300x200/00493C/FFFFFF?text=Premier+Golf+Turf" }
  ],
  "cart": [],
  "bookings": []
}
```

src/services/ApiService.js

```
import axios from "axios";
const API_URL = "http://localhost:5001"; // json-server backend
// USER API
export const registerUser = (user) => axios.post(`${API_URL}/users`, user);
export const getUsers = () => axios.get(`${API_URL}/users`);
// AUTH API (demo only)
export const loginUser = async (email, password) => {
  const res = await
    axios.get(`${API_URL}/users?email=${encodeURIComponent(email)}&password=${encodeURIComponent(password)}`);
  return res.data.length > 0 ? res.data[0] : null;
};

// TURF API
export const getTurfs = () => axios.get(`${API_URL}/turfs`);
export const addTurf = (turf) => axios.post(`${API_URL}/turfs`, turf);
export const updateTurf = (id, turf) => axios.put(`${API_URL}/turfs/${id}`, turf);
export const deleteTurf = (id) => axios.delete(`${API_URL}/turfs/${id}`);
// CART API
export const getCart = () => axios.get(`${API_URL}/cart`);
export const addToCart = (item) => axios.post(`${API_URL}/cart`, item);
export const removeFromCart = (id) => axios.delete(`${API_URL}/cart/${id}`);
// Clear all cart items (json-server doesn't support DELETE /cart collection
// directly)
export const clearCart = async () => {
  const res = await axios.get(`${API_URL}/cart`);
  // console.log(res);
  // axios.delete(`${API_URL}/cart`);
}
```

```

    await Promise.all(res.data.map(item =>
    axios.delete(`${API_URL}/cart/${item.id}`)));
  });

```

```

src/components/AdminNavbar.jsx
import React from "react";
import { Link, useNavigate } from "react-router-dom";
const AdminNavbar = () => {
  const navigate = useNavigate();
  const handleLogout = () => {
    localStorage.removeItem("user");
    navigate("/login", { replace: true });
  };
  return (
    <nav className="navbar navbar-expand-lg navbar-dark bg-dark px-3">
      <Link className="navbar-brand fw-bold" to="/admin">
        Turf Admin
      </Link>
      <div className="ms-auto">
        <Link className="btn btn-outline-light me-2" to="/admin">
          Dashboard
        </Link>
        <button className="btn btn-danger" onClick={handleLogout}>
          Logout
        </button>
      </div>
    </nav>
  );
};

export default AdminNavbar;

```

```

src/components/UserNavbar.jsx
import React from "react";
import { Link, useNavigate } from "react-router-dom";
const UserNavbar = () => {
  const navigate = useNavigate();
  const handleLogout = () => {
    localStorage.removeItem("user");
    navigate("/login", { replace: true });
  };
  return (
    <nav className="navbar navbar-expand-lg navbar-dark bg-success px-3">
      <Link className="navbar-brand fw-bold" to="/user">
        Turf Booking
      </Link>
      <div className="ms-auto">
        <Link className="btn btn-outline-light me-2" to="/cart">

```

```

    Cart
  </Link>
  <button className="btn btn-danger" onClick={handleLogout}>
    Logout
  </button>
</div>
</nav>
);
};

export default UserNavbar;

```

```

src/components/TurfCard.jsx
import React from "react";
const TurfCard = ({ turf, onBook }) => {
  return (
    <div className="card shadow-sm m-2" style={{ width: "18rem" }}>
      <img src={turf.image} className="card-img-top" alt={turf.name} />
      <div className="card-body">
        <h5 className="card-title">{turf.name}</h5>
        <p className="card-text">{turf.location}</p>
        <p><strong>■{turf.price}</strong> / hour</p>
        {onBook && (
          <button className="btn btn-primary" onClick={() => onBook(turf)}>
            Book Now
          </button>
        )}
      </div>
    </div>
  );
};

export default TurfCard;

```

```

src/pages/Welcome.jsx
import React from "react";
import { Link } from "react-router-dom";
const Welcome = () => (
  <div className="container text-center mt-5">
    <h2>Welcome to Turf Management System</h2>
    <p>Please login or register to continue</p>
    <Link to="/login" className="btn btn-primary me-2">Login</Link>
    <Link to="/register" className="btn btn-secondary">Register</Link>
  </div>
);

export default Welcome;

```

```

src/pages/Login.jsx

```

```

import React from "react";
import { useFormik } from "formik";
import * as Yup from "yup";
import { loginUser } from "../services/ApiService";
import { useNavigate } from "react-router-dom";
const Login = () => {
  const navigate = useNavigate();
  const formik = useFormik({
    initialValues: { email: "", password: "" },
    validationSchema: Yup.object({
      email: Yup.string().required("Required"),
      password: Yup.string().required("Required"),
    }),
    onSubmit: async (values) => {
      const user = await loginUser(values.email, values.password);
      if (user) {
        localStorage.setItem("user", JSON.stringify(user));
        if (user.role === "admin") navigate("/admin");
        else navigate("/user");
      } else {
        alert("Invalid credentials!");
      }
    },
  });
  return (
    <div className="container mt-5" style={{ maxWidth: 480 }}>
      <h3>Login</h3>
      <form onSubmit={formik.handleSubmit} className="card p-3 shadow-sm">
        <input
          type="email"
          placeholder="Email"
          {...formik.getFieldProps("email")}
          className="form-control mb-2"
        />
        <input
          type="password"
          placeholder="Password"
          {...formik.getFieldProps("password")}
          className="form-control mb-2"
        />
        <button type="submit" className="btn btn-primary w-100">Login</button>
      </form>
    </div>
  );
};
export default Login;

```

```

src/pages/Register.jsx
import React from "react";

```

```

import { useFormik } from "formik";
import * as Yup from "yup";
import { registerUser } from "../services/ApiService";
import { useNavigate } from "react-router-dom";
const Register = () => {
  const navigate = useNavigate();
  const formik = useFormik({
    initialValues: { name: "", email: "", password: "", role: "user" },
    validationSchema: Yup.object({
      name: Yup.string().required("Required"),
      email: Yup.string().email("Invalid email").required("Required"),
      password: Yup.string().min(6, "At least 6 chars").required("Required"),
    }),
    onSubmit: async (values) => {
      await registerUser(values);
      alert("Registration successful!");
      navigate("/login");
    },
  });
  return (
    <div className="container mt-5" style={{ maxWidth: 520 }}>
      <h3>Register</h3>
      <form onSubmit={formik.handleSubmit} className="card p-3 shadow-sm">
        <input
          placeholder="Name"
          {...formik.getFieldProps("name")}
          className="form-control mb-2"
        />
        <input
          type="email"
          placeholder="Email"
          {...formik.getFieldProps("email")}
          className="form-control mb-2"
        />
        <input
          type="password"
          placeholder="Password"
          {...formik.getFieldProps("password")}
          className="form-control mb-2"
        />
        <button type="submit" className="btn btn-success w-100">Register</button>
      </form>
    </div>
  );
};
export default Register;

```

```

src/pages/AdminDashboard.jsx
import React, { useEffect, useState } from "react";

```

```

import { getTurfs, addTurf, deleteTurf } from "../services/ApiService";
import AdminNavbar from "../components/AdminNavbar";
const AdminDashboard = () => {
  const [turfs, setTurfs] = useState([]);
  const [name, setName] = useState("");
  const [location, setLocation] = useState("");
  const [price, setPrice] = useState("");
  const loadTurfs = async () => {
    const res = await getTurfs();
    setTurfs(res.data);
  };
  useEffect(() => {
    loadTurfs();
  }, []);
  const handleAdd = async () => {
    if (!name || !location || !price) return alert("Fill all fields");
    await addTurf({ name, location, price: Number(price), image:
"https://via.placeholder.com/150" });
    setName(""); setLocation(""); setPrice("");
    loadTurfs();
  };
  const handleDelete = async (id) => {
    await deleteTurf(id);
    loadTurfs();
  };
  return (
    <>
    <AdminNavbar />
    <div className="container mt-4">
    <h3>Manage Turfs</h3>
    <div className="card p-3 mb-3">
    <input placeholder="Name" value={name} onChange={(e) => setName(e.target.value)}
className="form- <input placeholder="Location" value={location} onChange={(e) =>
setLocation(e.target.value)} clas <input placeholder="Price" value={price}
onChange={(e) => setPrice(e.target.value)} className="fo <button
onClick={handleAdd} className="btn btn-primary">Add Turf</button>
</div>
    <ul className="list-group">
    {turfs.map((t) => (
    <li key={t.id} className="list-group-item d-flex justify-content-between
align-items-center">
    <span>{t.name} • {t.location} • ■{t.price}</span>
    <button className="btn btn-danger btn-sm" onClick={() =>
handleDelete(t.id)}>Delete</button>
</li>
    ))}
    </ul>
    </div>
    </>
  );
}

```

```

};
export default AdminDashboard;

src/pages/UserDashboard.jsx
import React, { useEffect, useState } from "react";
import { getTurfs, addToCart } from "../services/ApiService";
import UserNavbar from "../components/UserNavbar";
import TurfCard from "../components/TurfCard";
const UserDashboard = () => {
  const [turfs, setTurfs] = useState([]);
  useEffect(() => {
    getTurfs().then((res) => setTurfs(res.data));
  }, []);
  const handleBook = async (turf) => {
    await addToCart({ ...turf, quantity: 1 });
    alert("Added to cart!");
  };
  return (
    <>
    <UserNavbar />
    <div className="container mt-4 d-flex flex-wrap">
      {turfs.map((turf) => (
        <TurfCard key={turf.id} turf={turf} onBook={handleBook} />
      ))}
    </div>
    </>
  );
};
export default UserDashboard;

```

```

src/pages/Cart.jsx
import React, { useEffect, useState } from "react";
import { getCart, removeFromCart, clearCart } from "../services/ApiService";
import { Link } from "react-router-dom";
const Cart = () => {
  const [cart, setCart] = useState([]);
  const loadCart = async () => {
    const res = await getCart();
    setCart(res.data);
  };
  useEffect(() => {
    loadCart();
  }, []);
  const handleRemove = async (id) => {
    await removeFromCart(id);
    loadCart();
  };
  const handleClear = async () => {
    await clearCart();
  };

```

```

loadCart();
};
const total = cart.reduce((sum, item) => sum + Number(item.price || 0) *
Number(item.quantity || 1), 0);
return (
  <div className="container mt-4">
    <h3>Your Cart</h3>
    {cart.length === 0 ? (
      <p>No items in cart. <Link to="/user">Browse turfs</Link></p>
    ) : (
      <div className="card p-3 shadow-sm">
        {cart.map((c) => (
          <div key={c.id} className="d-flex justify-content-between align-items-center
border-bottom py-2 <div>
            <strong>{c.name}</strong>
            <div className="small text-muted">■{c.price} × {c.quantity || 1}</div>
          </div>
          <button className="btn btn-sm btn-danger" onClick={() =>
handleRemove(c.id)}>Remove</button>
        </div>
        )))}
        <div className="d-flex justify-content-between align-items-center mt-3">
          <strong>Total: ■{total}</strong>
        </div>
        <button className="btn btn-outline-secondary me-2" onClick={handleClear}>Clear
Cart</button>
        <Link to="/checkout" className="btn btn-success">Proceed to Checkout</Link>
      </div>
    </div>
  );
};
export default Cart;

```

```

src/pages/Checkout.jsx
import React from "react";
const Checkout = () => (
  <div className="container mt-5 text-center">
    <h2>Checkout Successful ■</h2>
    <p>Thank you for booking! Your turf is reserved.</p>
  </div>
);
export default Checkout;
src/pages/EditTurf.jsx
import React, { useEffect, useState } from "react";
import { useParams, useNavigate } from "react-router-dom";
import { getTurfs, updateTurf } from "../services/ApiService";

```



```

const EditTurf = () => {
  const { id } = useParams();
  const navigate = useNavigate();
  const [turf, setTurf] = useState({ name: "", location: "", price: "" });
  useEffect(() => {
    getTurfs().then((res) => {
      const found = res.data.find((t) => t.id === Number(id));
      if (found) setTurf(found);
    });
  }, [id]);
  const handleSubmit = async (e) => {
    e.preventDefault();
    await updateTurf(id, { ...turf, price: Number(turf.price) });
    navigate("/admin");
  };
  return (
    <div className="container mt-4" style={{ maxWidth: 520 }}>
      <h3>Edit Turf</h3>
      <form onSubmit={handleSubmit} className="card p-3 shadow-sm">
        <input value={turf.name} onChange={(e) => setTurf({ ...turf, name:
e.target.value })} className="form <input value={turf.location} onChange={(e) =>
setTurf({ ...turf, location: e.target.value })} classNa <input value={turf.price}
onChange={(e) => setTurf({ ...turf, price: e.target.value })} className="fo <button
type="submit" className="btn btn-primary">Update Turf</button>
      </form>
    </div>
  );
};
export default EditTurf;

```

```

src/App.jsx
import React from "react";
import { Routes, Route } from "react-router-dom";
import Welcome from "../pages/Welcome";
import Login from "../pages/Login";
import Register from "../pages/Register";
import AdminDashboard from "../pages/AdminDashboard";
import UserDashboard from "../pages/UserDashboard";
import Cart from "../pages/Cart";
import Checkout from "../pages/Checkout";
import EditTurf from "../pages/EditTurf";
const App = () => (
  <>
    <Routes>
      <Route path="/" element={<Welcome />} />
      <Route path="/login" element={<Login />} />
      <Route path="/register" element={<Register />} />
      <Route path="/admin" element={<AdminDashboard />} />
      <Route path="/admin/turfs/:id" element={<EditTurf />} />
    </Routes>
  </>
);

```

```
<Route path="/user" element={<UserDashboard />} />
<Route path="/cart" element={<Cart />} />
<Route path="/checkout" element={<Checkout />} />
</Routes>
</>
);
export default App;
```

```
src/main.jsx
import { StrictMode } from 'react'
import { createRoot } from 'react-dom/client'
import { BrowserRouter } from 'react-router-dom'
import 'bootstrap/dist/css/bootstrap.min.css'
import App from './App.jsx'
createRoot(document.getElementById('root')).render(
  <StrictMode>
    <BrowserRouter>
      <App />
    </BrowserRouter>
  </StrictMode>
)
```