Database Setup File (database\_setup.sql)

-- 1. Create Database

CREATE DATABASE elvira\_finance\_tracker;

USE elvira\_finance\_tracker;

-- 2. Create Users Table

CREATE TABLE users (

user\_id INT AUTO\_INCREMENT PRIMARY KEY,

full\_name VARCHAR(255) NOT NULL,

email VARCHAR(255) UNIQUE NOT NULL,

password\_hash VARCHAR(255) NOT NULL,

phone VARCHAR(20),

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP

);

-- 3. Create Transactions Table

CREATE TABLE transactions (

transaction\_id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT,

amount DECIMAL(10,2) NOT NULL,

category VARCHAR(100) NOT NULL,

transaction\_type ENUM('income', 'expense') NOT NULL,

date TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (user\_id) REFERENCES users(user\_id) ON DELETE CASCADE

);

-- 4. Create Budgets Table

CREATE TABLE budgets (

budget\_id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT,

category VARCHAR(100) NOT NULL,

amount DECIMAL(10,2) NOT NULL,

start\_date DATE NOT NULL,

end\_date DATE NOT NULL,

FOREIGN KEY (user\_id) REFERENCES users(user\_id) ON DELETE CASCADE

);

-- 5. Create Loyalty Points Table

CREATE TABLE loyalty\_points (

loyalty\_id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT,

points INT DEFAULT 0,

last\_updated TIMESTAMP DEFAULT CURRENT\_TIMESTAMP ON UPDATE CURRENT\_TIMESTAMP,

FOREIGN KEY (user\_id) REFERENCES users(user\_id) ON DELETE CASCADE

);

-- 6. Create Alerts Table

CREATE TABLE alerts (

alert\_id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT,

message TEXT NOT NULL,

alert\_type ENUM('budget\_limit', 'promotion', 'transaction\_alert') NOT NULL,

is\_read BOOLEAN DEFAULT FALSE,

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (user\_id) REFERENCES users(user\_id) ON DELETE CASCADE

);

-- 7. Insert Sample Data

INSERT INTO users (full\_name, email, password\_hash, phone) VALUES

('John Doe', 'johndoe@example.com', 'hashedpassword123', '08012345678'),

('Jane Smith', 'janesmith@example.com', 'hashedpassword456', '09087654321');

INSERT INTO transactions (user\_id, amount, category, transaction\_type) VALUES

(1, 5000, 'Groceries', 'expense'),

(2, 15000, 'Salary', 'income');

INSERT INTO budgets (user\_id, category, amount, start\_date, end\_date) VALUES

(1, 'Groceries', 20000, '2025-04-01', '2025-04-30');

INSERT INTO loyalty\_points (user\_id, points) VALUES

(1, 50),

(2, 100);

INSERT INTO alerts (user\_id, message, alert\_type) VALUES

(1, 'You have reached 80% of your grocery budget!', 'budget\_limit'),

(2, 'New promotion available: 20% off all items!', 'promotion');

Database Connection File (db\_connect.php)

<?php

$servername = "localhost";

$username = "root"; // Change if using a different database user

$password = ""; // Add your database password if needed

$dbname = "elvira\_finance\_tracker";

// Create connection

$conn = new mysqli($servername, $username, $password, $dbname);

// Check connection

if ($conn->connect\_error) {

die("Connection failed: " . $conn->connect\_error);

}

?>

// Elvira Finance Tracker - Complete Codebase

// App.js - Main Component

import React from "react";

import { BrowserRouter as Router, Route, Routes } from "react-router-dom";

import Dashboard from "./components/Dashboard";

import BudgetManager from "./components/BudgetManager";

import ExpenseTracker from "./components/ExpenseTracker";

import Alerts from "./components/Alerts";

import LoyaltyProgram from "./components/LoyaltyProgram";

import Navbar from "./components/Navbar";

import Login from "./components/Login";

function App() {

return (

<Router>

<Navbar />

<Routes>

<Route path="/" element={<Dashboard />} />

<Route path="/budget" element={<BudgetManager />} />

<Route path="/expenses" element={<ExpenseTracker />} />

<Route path="/alerts" element={<Alerts />} />

<Route path="/loyalty" element={<LoyaltyProgram />} />

<Route path="/login" element={<Login />} />

</Routes>

</Router>

);

}

export default App;

// Navbar.js - Navigation Component

import React from "react";

import { Link } from "react-router-dom";

const Navbar = () => {

return (

<nav>

<ul>

<li><Link to="/">Dashboard</Link></li>

<li><Link to="/budget">Budget</Link></li>

<li><Link to="/expenses">Expenses</Link></li>

<li><Link to="/alerts">Alerts</Link></li>

<li><Link to="/loyalty">Loyalty</Link></li>

<li><Link to="/login">Login</Link></li>

</ul>

</nav>

);

};

export default Navbar;

// Dashboard.js - Home Component

import React from "react";

const Dashboard = () => {

return (

<div>

<h2>Welcome to Elvira Finance Tracker</h2>

<p>Manage your finances effectively within the supermarket ecosystem.</p>

</div>

);

};

export default Dashboard;

// BudgetManager.js - Budgeting Component

import React, { useState } from "react";

const BudgetManager = () => {

const [budget, setBudget] = useState(0);

return (

<div>

<h2>Budget Manager</h2>

<input type="number" value={budget} onChange={(e) => setBudget(e.target.value)} />

<p>Your budget: {budget}</p>

</div>

);

};

export default BudgetManager;

// ExpenseTracker.js - Expense Tracking Component

import React, { useState } from "react";

const ExpenseTracker = () => {

const [expenses, setExpenses] = useState([]);

const addExpense = (e) => {

e.preventDefault();

const newExpense = { id: expenses.length + 1, name: e.target.name.value, amount: e.target.amount.value };

setExpenses([...expenses, newExpense]);

};

return (

<div>

<h2>Expense Tracker</h2>

<form onSubmit={addExpense}>

<input type="text" name="name" placeholder="Expense Name" required />

<input type="number" name="amount" placeholder="Amount" required />

<button type="submit">Add Expense</button>

</form>

<ul>

{expenses.map((exp) => (

<li key={exp.id}>{exp.name} - ${exp.amount}</li>

))}

</ul>

</div>

);

};

export default ExpenseTracker;

// Alerts.js - Notifications Component

import React from "react";

const Alerts = () => {

return (

<div>

<h2>Alerts & Notifications</h2>

<p>Stay informed about your spending habits and supermarket promotions.</p>

</div>

);

};

export default Alerts;

// LoyaltyProgram.js - Loyalty Features Component

import React from "react";

const LoyaltyProgram = () => {

return (

<div>

<h2>Loyalty Program</h2>

<p>Earn rewards and discounts for smart financial management.</p>

</div>

);

};

export default LoyaltyProgram;

// Login.js - Authentication Component

import React, { useState } from "react";

const Login = () => {

const [username, setUsername] = useState("");

const [password, setPassword] = useState("");

const handleLogin = (e) => {

e.preventDefault();

alert(`Welcome, ${username}!`);

};

return (

<div>

<h2>Login</h2>

<form onSubmit={handleLogin}>

<input type="text" placeholder="Username" onChange={(e) => setUsername(e.target.value)} required />

<input type="password" placeholder="Password" onChange={(e) => setPassword(e.target.value)} required />

<button type="submit">Login</button>

</form>

</div>

);

};

export default Login;

```

import React from "react";

import { Sidebar } from "./Sidebar";

import { Card, CardContent } from "@/components/ui/card";

import { BarChart, Bar, XAxis, YAxis, Tooltip, ResponsiveContainer } from "recharts";

import { Button } from "@/components/ui/button";

import { Bell, DollarSign, ShoppingCart } from "lucide-react";

const data = [

{ name: "Jan", spending: 400 },

{ name: "Feb", spending: 350 },

{ name: "Mar", spending: 500 },

{ name: "Apr", spending: 450 },

{ name: "May", spending: 600 },

];

const Dashboard = () => {

return (

<div className="flex h-screen bg-gray-100">

<Sidebar />

<div className="flex-1 p-6">

<h1 className="text-2xl font-bold mb-4">Dashboard</h1>

<div className="grid grid-cols-1 md:grid-cols-3 gap-4 mb-6">

<Card>

<CardContent className="flex items-center p-4">

<DollarSign className="w-10 h-10 text-green-500 mr-4" />

<div>

<h2 className="text-lg font-semibold">Total Spending</h2>

<p className="text-gray-600">₦120,000</p>

</div>

</CardContent>

</Card>

<Card>

<CardContent className="flex items-center p-4">

<ShoppingCart className="w-10 h-10 text-blue-500 mr-4" />

<div>

<h2 className="text-lg font-semibold">Recent Purchases</h2>

<p className="text-gray-600">23 Transactions</p>

</div>

</CardContent>

</Card>

<Card>

<CardContent className="flex items-center p-4">

<Bell className="w-10 h-10 text-red-500 mr-4" />

<div>

<h2 className="text-lg font-semibold">Alerts</h2>

<p className="text-gray-600">3 Notifications</p>

</div>

</CardContent>

</Card>

</div>

<div className="bg-white p-6 rounded-lg shadow-md">

<h2 className="text-lg font-bold mb-4">Spending Overview</h2>

<ResponsiveContainer width="100%" height={300}>

<BarChart data={data}>

<XAxis dataKey="name" />

<YAxis />

<Tooltip />

<Bar dataKey="spending" fill="#3182ce" />

</BarChart>

</ResponsiveContainer>

</div>

<div className="mt-6 flex justify-end">

<Button className="bg-blue-600 text-white">View Full Report</Button>

</div>

</div>

</div>

);

};

export default Dashboard;