**Expense Tracker Application**

**FRONT END WEB DEVELOPMENT**

**CORE FEATURES**

import { useState } from 'react';

import axios from '../api';

const AddTransaction = ({ refresh }) => {

const [form, setForm] = useState({ type: 'expense', category: '', amount: 0 });

const handleSubmit = async (e) => {

e.preventDefault();

await axios.post('/transactions', form);

refresh();

};

return (

<form onSubmit={handleSubmit} className="p-4 bg-white rounded shadow">

<select onChange={(e) => setForm({ ...form, type: e.target.value })}>

<option value="expense">Expense</option>

<option value="income">Income</option>

</select>

<input type="text" placeholder="Category" onChange={(e) => setForm({ ...form, category: e.target.value })} />

<input type="number" placeholder="Amount" onChange={(e) => setForm({ ...form, amount: parseFloat(e.target.value) })} />

<button className="bg-blue-500 text-white p-2 rounded">Add</button>

</form>

);

};

**DASHBOARD**

import { useEffect, useState } from 'react';

import { Doughnut } from 'react-chartjs-2';

import axios from '../api';

const Dashboard = () => {

const [summary, setSummary] = useState({});

useEffect(() => {

axios.get('/transactions/summary').then(res => setSummary(res.data));

}, []);

const data = {

labels: Object.keys(summary),

datasets: [{ data: Object.values(summary), backgroundColor: ['#34D399', '#F87171', '#60A5FA'] }],

};

return <Doughnut data={data} />;

};

**BACK END DEVELOPMENT**

**MODEL**

// models/transaction.js

const { DataTypes } = require('sequelize');

const sequelize = require('../db');

const Transaction = sequelize.define('Transaction', {

type: DataTypes.ENUM('income', 'expense'),

category: DataTypes.STRING,

amount: DataTypes.FLOAT,

});

module.exports = Transaction;

**API ROUTES**

// routes/transactions.js

const express = require('express');

const router = express.Router();

const Transaction = require('../models/transaction');

// Create

router.post('/', async (req, res) => {

const transaction = await Transaction.create(req.body);

res.json(transaction);

});

// Read All

router.get('/', async (req, res) => {

const transactions = await Transaction.findAll();

res.json(transactions);

});

// Summary

router.get('/summary', async (req, res) => {

const transactions = await Transaction.findAll();

const summary = {};

transactions.forEach(t => {

summary[t.category] = (summary[t.category] || 0) + t.amount;

});

res.json(summary);

});

// Delete

router.delete('/:id', async (req, res) => {

await Transaction.destroy({ where: { id: req.params.id } });

res.sendStatus(204);

});

module.exports = router;

**DATABASE MANAGEMENT**

const { Sequelize } = require('sequelize');

const sequelize = new Sequelize('expense\_tracker', 'user', 'password', {

host: 'localhost',

dialect: 'postgres'

});

module.exports = sequelize;

**SYNCING MODELS**

// app.js

const express = require('express');

const sequelize = require('./db');

const transactionRoutes = require('./routes/transactions');

const app = express();

app.use(express.json());

app.use('/transactions', transactionRoutes);

sequelize.sync().then(() => {

app.listen(3001, () => console.log('Server running on port 3001'));

});