

RASAYANS 2K25

CODE KINETICS



OPTIMIZERS

TEAM MEMBERS

BRANCH: CHEMICAL ENGINEERING

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CODE KINETICS

TECH STACK

FRONTEND

REACT , TAILWIND CSS

BACKEND

NODE JS , EXPRESS JS

DATABASE

MONGO DB





SPLITZ

In shared living situations, travel groups, or social gatherings, managing joint finances and tracking "who owes whom" is a persistent challenge often plagued by manual calculation errors and lack of transparency.

This project presents the design and implementation of a Web-Based Group Finance Tracker, a full-stack application developed to automate expense splitting and settle debts efficiently.





WORKFLOW AND FEATURES

- **SECURE ENTRY:** USERS AUTHENTICATE VIA A SECURE JWT-BASED LOGIN SYSTEM TO ACCESS THEIR PERSONALIZED, PROTECTED DASHBOARD.
- **GROUP DYNAMICS:** COLLABORATION INITIATES BY CREATING SPECIFIC GROUPS AND ONBOARDING PEERS INSTANTLY USING UNIQUE SHAREABLE INVITE LINKS.
- **TRANSACTION LOGGING:** MEMBERS RECORD FINANCIAL TRANSACTIONS BY SPECIFYING THE AMOUNT, PAYER, AND EXPENSE CATEGORY IN THE CENTRAL LEDGER.
- **AUTOMATED CALCULATION:** THE BACKEND ALGORITHM IMMEDIATELY EXECUTES THE SPLIT LOGIC, AUTOMATICALLY DIVIDING COSTS EQUALLY AMONG GROUP MEMBERS.
- **REAL-TIME ALERTS:** THE SYSTEM TRIGGERS INSTANT NOTIFICATIONS TO ALERT SPECIFIC MEMBERS OF THEIR NEWLY ACCRUED DEBTS.
- **VISUAL ANALYTICS:** THE DASHBOARD UPDATES DYNAMICALLY TO VISUALIZE SPENDING HABITS VIA PIE CHARTS AND TRACK REAL-TIME SETTLEMENT STATUS.
- **SCALABLE ARCHITECTURE:** THE SYSTEM IS STRUCTURED TO SUPPORT FUTURE EXPANSIONS, INCLUDING AI-DRIVEN SPENDING INSIGHTS AND OCR-BASED RECEIPT SCANNING FOR AUTOMATED DATA ENTRY.

