RECEIPT & INVOICE DIGITIZER

Milestone 3: Dashboard & Reporting

By: Team D

TEAM LEADER

- Name : Gajendra Rajpoot
- Role : Display attractive analytics Dashboard
- Responsibilities :
- **Total Spend by Vendor (Bar Chart):** Ranks merchants by absolute dollar value to immediately identify top cost centers.
- **Monthly Spending Trend (Line Chart):** Tracks financial velocity over time to spot seasonality or irregular spending spikes.
- **Day-of-Week Analysis (Heatmap Bar):** Aggregates transaction data to reveal operational purchasing habits (e.g., "Heavy buying on Fridays").
- **Top 10 Frequent Items (Horizontal Bar):** Drills down from the merchant level to the product level to identify the most recurring inventory purchases.

TEAM MEMBER 1

- Name : Shivangi Bhargava
- Role : Build Streamlit Dashboard for Upload/Review
- Responsibilities :
- Enhancement of Design and implement complete user interface including file upload components, multi-tab navigation, and real-time processing displays.
- UI enhancement for file handling system supporting multiple formats (JPG/PNG/PDF) with validation, preprocessing, and duplicate detection.
- Creating interactive data review interface showing extracted receipt data and validation results with visual indicators.

TEAM MEMBER 2

- Name : Divya Sri Yaganti
- Role : Add CSV/Excel export and some updations in the history tab
- Responsibilities :
- Search option for Bills
- Date-Wise Receipt Filtering
- Month-Wise Invoice Organization with Budget Tracking
- AI-Based Spending Suggestions

PROBLEM STATEMENT

High Technical Barrier
Users rely on manual scripts or database queries to interact with the system, creating a dependency on the engineering team for simple tasks.

Data Silos
Processed results are "locked" inside the application, making it difficult to easily export data to Excel or CSV for external auditing and sharing.

Blind Spots in Analytics
There is no real-time visibility into high-level metrics (such as monthly totals), forcing users to manually aggregate data to understand performance trends.

SOLUTION OVERVIEW

Centralized Control
A user-friendly interface for uploading, validating, and reviewing data.
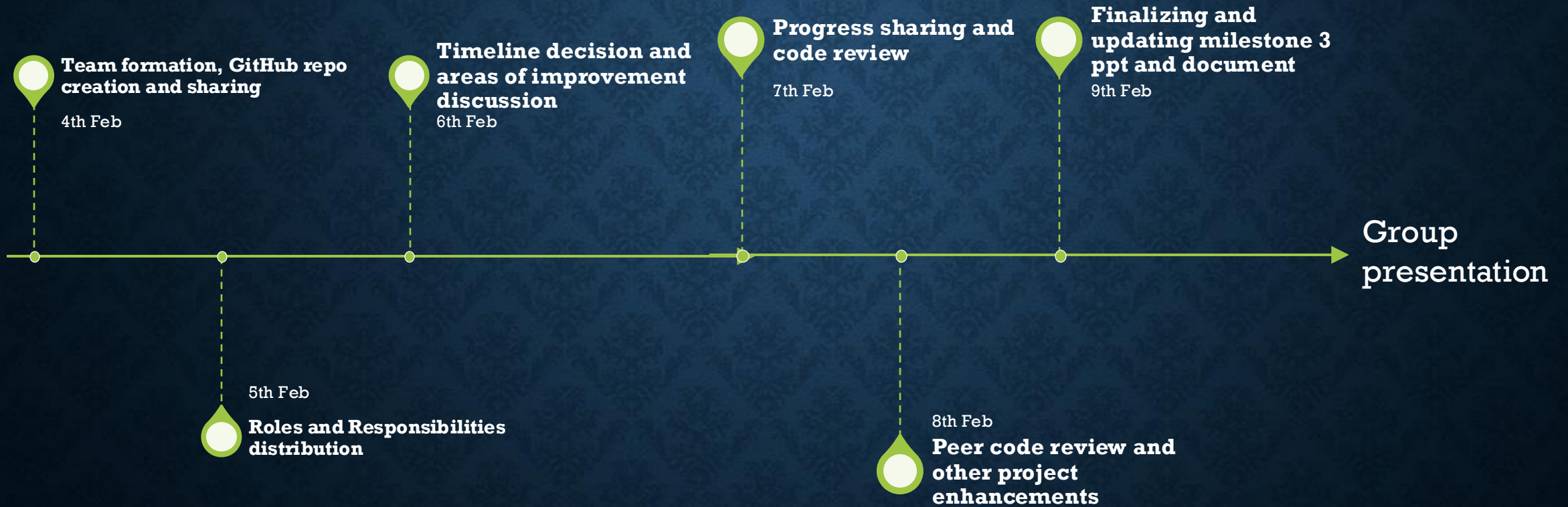
Data Portability
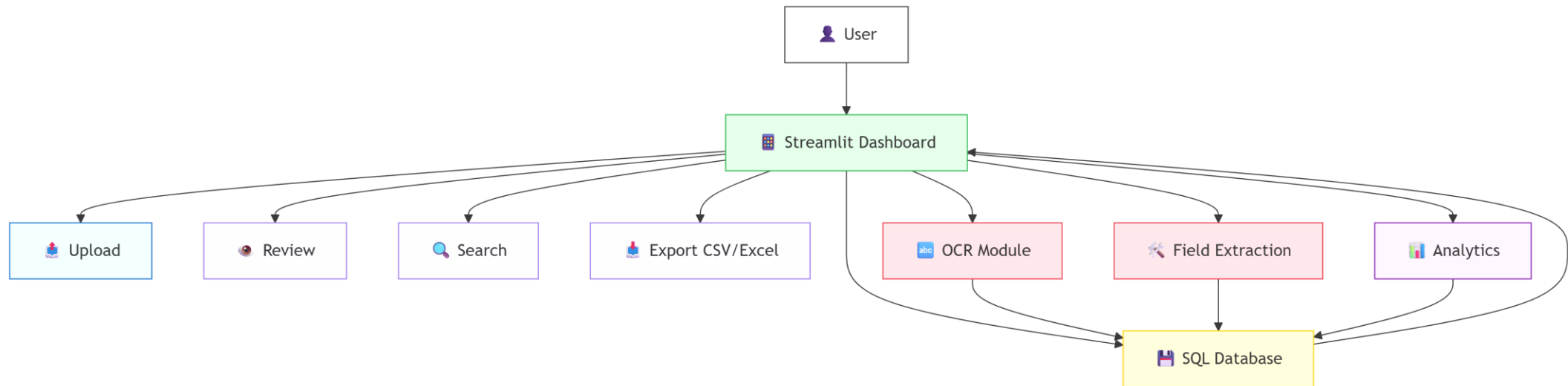Seamless export functionality to CSV and Excel for external reporting.

Instant Visibility
Integrated analytics to visualize monthly totals and key performance trends at a glance.

TIMELINE

Team formation, GitHub repo creation and sharing

4th Feb

Timeline decision and areas of improvement discussion
6th Feb

Progress sharing and code review

7th Feb

Finalizing and updating milestone 3 ppt and document

9th Feb

Group presentation

5th Feb
Roles and Responsibilities distribution

8th Feb
Peer code review and other project enhancements

SYSTEM ARCHITECTURE DIAGRAM

1. BUILD STREAMLIT DASHBOARD FOR UPLOAD/REVIEW

- 📤 Create an Upload Interface – Develop a user-friendly file upload system for receipts/invoices (PDF, PNG, JPG formats).

- 👁 Design Data Review Panel – Display extracted fields (vendor, date, amount, items) in a clean, readable format for user verification.

- 🔍 Implement Search & Filter – Add functionality to search receipts by vendor name, date range.

- 📊 Ensure Responsive Layout – Optimize dashboard for different screen sizes with clear navigation and visual hierarchy.

- ⚡ Connect to Backend Systems – Integrate with existing OCR and database modules to display real-time extracted data.

-

2. ADD CSV/EXCEL EXPORT

- 📕 **Data Portability:**

- Implemented **CSV/Excel Export** functionality, allowing users to download financial reports for offline analysis.

- 🔍 **Advanced Retrieval System:**

- Developed a global **Search Option** to instantly locate specific bills by keyword or merchant name.

- Engineered **Date-Wise Filtering** logic to isolate receipts within specific custom timeframes.

- 📅 **Financial Organization:**

- Structured the History Tab for **Month-Wise Invoice Organization**, creating a cleaner, navigable user experience.

- Integrated **Budget Tracking** markers to visually compare monthly spending against set limits.

- 🤖 **AI-Driven Intelligence:**

- Designed **AI-Based Spending Suggestions** to analyze patterns and recommend potential cost-saving opportunities.

- 🔄 **UI/UX Enhancements:**

- Deployed critical updates to the **History Tab**, improving load times and visual layout for smoother navigation.

3. DISPLAY SIMPLE ANALYTICS (MONTHLY TOTALS).

- 📊 **Dashboard Architecture:** Designed a comprehensive Analytics Tab using Streamlit to visualize financial health.

- 🛠️ **Data Transformation:** Implemented robust preprocessing to clean raw text, handle missing dates, and standardize currency formats.

- 🎯 **KPI Tracking:** Calculated and displayed high-level metrics: Total Spend, Average Receipt Value, and Total Tax Paid.

- 📈 **Trend Visualization:** Developed time-series analysis (Line & Area charts) to track monthly spending velocity and cumulative growth.

- 🛒 **Item-Level Granularity:** Integrated drill-down logic to rank and visualize the "Top 10" most frequently purchased products.

THANK YOU !