AI-Powered Personal Finance Dashboard

Comprehensive Project Blueprint & UI Design Document

1. Project Overview

• Tech Stack: Angular 20, PrimeNG, Bootstrap
• Backend: Mock APIs (JSON-server / MirageJS)
• Target Developer: 6+ Years Experienced Angular Developer
• Goal: Deliver a fully functional, mock-API-driven, production-ready SPA in 10–15 days.

2. Functional & Non-Functional Requirements

• User authentication with mock JWT and Signals-based auth state.
• Interactive dashboard with KPIs, charts, and quick actions.
• Transaction management: CRUD, filters, infinite scroll, virtualized tables.
• Budget planner: Category-wise budgets, progress bars, alerts.
• Reports: Interactive charts, CSV/PDF/Excel export.
• AI-powered insights: Mock API-driven recommendations.
• Performance: Zoneless rendering, Signals, defer views, lazy loading.
• Security: JWT simulation, DomSanitizer, XSS & CSRF prevention.
• Accessibility: WCAG AA compliant, responsive UI, i18n-ready.

3. Development Roadmap (10–15 Days)

• Day 1–2: Project setup, PrimeNG + Bootstrap, mock APIs.
• Day 3: Authentication module with mock JWT auth.
• Day 4: Dashboard KPIs + charts integration.
• Day 5: Transactions module CRUD + filters.
• Day 6: Budget planner + alerts + progress bars.
• Day 7: Analytics dashboard with PrimeNG charts.
• Day 8: AI insights module with mock API integration.
• Day 9: Reports module + CSV/PDF/Excel export.
• Day 10: Final integration, error handling, loaders.
• Day 11–15: Optional — i18n, dark mode, PWA, testing, performance tuning.

4. PrimeNG Component Mapping

• Authentication: p-inputText, p-password, p-button, p-toast
• Dashboard: p-card, p-chart, p-button
• Transactions: p-table, p-paginator, p-dropdown, p-dialog, p-confirmDialog
• Budget Planner: p-slider, p-progressBar, p-toast, p-button
• Reports: p-chart, p-multiSelect, p-calendar, p-button
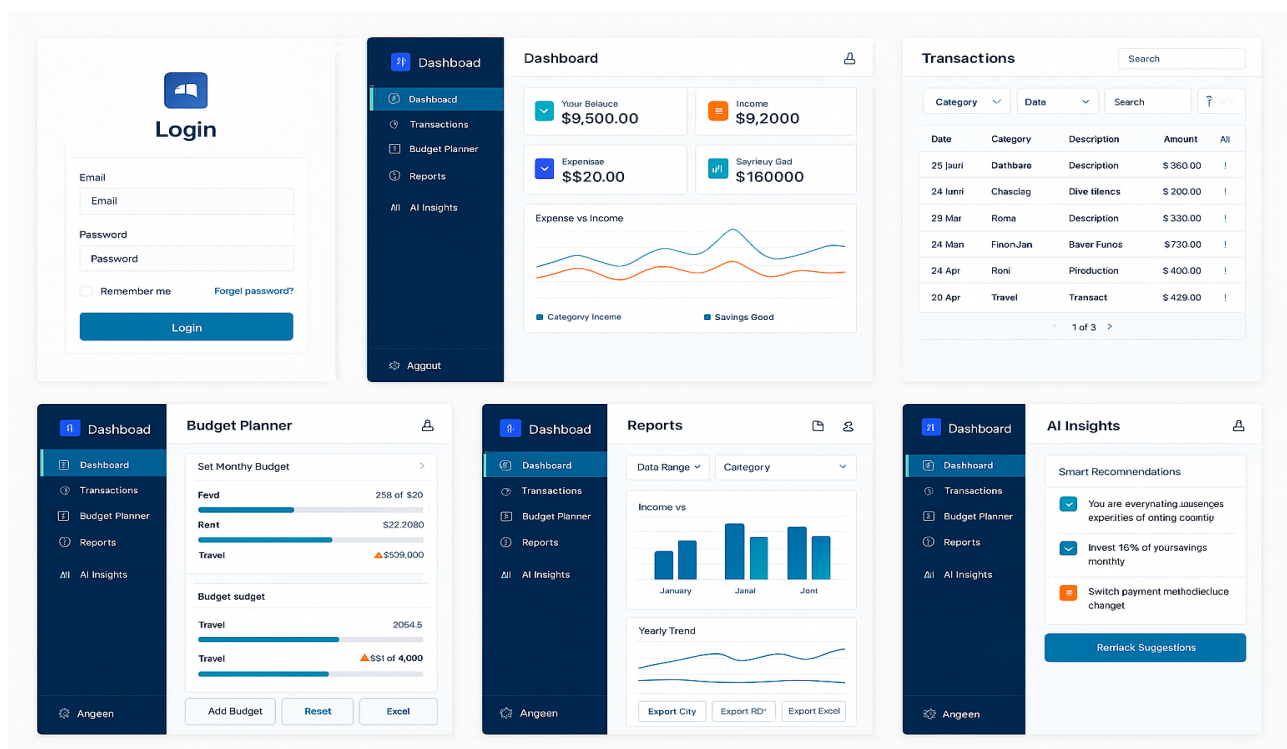• AI Insights: p-panel, p-card, p-toast, p-button

5. Screen-Wise Wireframes Overview

• Login, Dashboard, Transactions, Budget Planner, Reports, and AI Insights layouts designed for PrimeNG + Bootstrap.
• Responsive, enterprise-grade designs optimized for Angular 20 Signals.

6. Mock API Integration

• POST /api/v1/auth/login
• GET /api/v1/user/profile
• GET /api/v1/dashboard
• GET/POST/PUT/DELETE /api/v1/transactions
• GET/POST /api/v1/budgets
• GET /api/v1/reports
• GET /api/v1/ai/suggestions

7. High-Fidelity UI Mockups

8. Navigation Flow

Login → Dashboard → Transactions → Budget Planner → Reports → AI Insights

9. Final Deliverables

• Production-ready Angular 20 SPA.
• PrimeNG + Bootstrap-based responsive UI.
• Mock API integrated with realistic data simulation.
• AI-driven recommendations powered by mock endpoints.
• Comprehensive 10–15 day execution roadmap.

• High-fidelity UI mockups included.