**AI-Driven Personal Finance Assistant**

**Module & Feature Plan**

**1. User Management Module**

Handles user registration, authentication, session control, and account security.

**Features:**

* User Registration with OTP verification
* Password setup and validation
* Secure Login with error feedback
* Session handling (login/logout)
* Account Lock mechanism (with optional biometrics)
* Account Deletion with confirmation and secure data removal

**2. Bank Integration Module**

Securely connects, verifies, and manages user bank accounts.

**Features:**

* Add Bank Account
* Bank Account Format Validation
* OTP Verification (if required)
* Encrypted storage of bank details
* Success/Error messaging for account addition

**3. Financial Overview Module**

Visualizes user’s financial health using real-time and manual data inputs.

**Features:**

* Total balance, income, and expense display
* Manual entry of income/expenses
* Editable transaction logs
* AI-powered categorization suggestions for manual entries
* Error handling (e.g., data fetch failure)

**4. Transaction Categorization Module**

Categorizes bank transactions using AI and allows user corrections.

**Features:**

* Auto-fetch transactions
* AI-based category assignment
* Predefined categories (Groceries, Bills, Dining, etc.)
* “Uncategorized” handling
* User override of AI suggestions
* AI learns from corrections

**5. Budget Management Module**

Helps users set and manage monthly budgets by category.

**Features:**

* AI-suggested budgets based on past data
* User-defined category budgets
* Real-time progress tracking
* Editable budgets anytime
* Reset to AI suggestions

**6. Notifications Module**

Sends alerts and reminders for budgets, bills, and important events.

**Features:**

* Approaching budget limit alerts
* Budget exceeded warnings
* Custom settings
* Bill reminders (customizable timing)
* Queued delivery if user is offline
* “Paid” status marking from notifications

**7. Bill Management Module**

Manages recurring and manual bill entries and payment tracking.

**Features:**

* AI detection of recurring bills
* Manual bill addition and editing
* Due date reminders
* Bill status tracking via transaction history or manual input
* Reminder customization (1-7 days before due date)

**8. AI Insights Module**

Delivers personalized insights and actionable suggestions.

**Features:**

* Spending pattern analysis
* Monthly reports and improvement tips
* Prioritized suggestions
* Actionable links (to budget, goals, etc.)
* History of past insights

**9. Financial Goals Module**

Allows users to set and monitor savings or spending goals.

**Features:**

* Goal creation (name, amount, deadline)
* AI-suggested goals
* Progress bars and monthly targets
* Real-time updates via savings
* Tips for staying on track

**10. Data Export Module**

Enables offline data access through downloadable reports.

**Features:**

* Export to PDF or Excel
* Data selection (transaction, overview, budget, goals)
* Time-range filters
* Download and Share options
* Neatly formatted outputs