AI-Enhanced Budgeting System: Sprint Planning & Estimation

Course: SPM – Week 5

Theme: Backlog to Execution in IDEAL Labs

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Sprint Goal: AI Budget Dashboard

Design, integrate, and test the **AI-powered expense prediction and budget dashboard** for IDEAL Labs. This connects backend APIs to the frontend visual reporting.

Backlog to Action

Translate prioritized backlog into executable sprint tasks.

Measurable Output

Ensure demonstrable, measurable functionality by sprint end.

Working Features

Deliver a complete, *working dashboard feature*.

Selected Sprint Backlog Items

These tasks are prioritized from the product backlog to deliver the core AI Budgeting Dashboard functionality.

1

Connect Backend & UI

Establish data communication for real-time feeding.

2

Integrate AI Prediction Model

Hook predictive model for expense forecasts.

3

Test & Debug Visuals

Validate accuracy and responsiveness of charts.

4

Optimize Database Structure

Refine schema for faster financial data flow.

5

Sprint Review & Retrospective

Present work, analyze performance for improvement.

Effort Estimation Using Story Points

We use the Fibonacci sequence (1, 3, 5, 8, 13) and T-Shirt sizing for collaborative effort estimation based on complexity, risk, and volume.

31	13	2
Total Story Points	Highest Complexity	Lowest Complexity
Sprint's estimated work.	AI Model Integration.	Documentation/Review.

Task Description	Effort (SP)	Size (T-Shirt)
Connect backend APIs with dashboard UI	8	Large (L)
Integrate AI model for expense prediction	13	Extra Large (XL)
Test and debug visualization charts	5	Medium (M)
Refine database structure for data flow	3	Small (S)
Sprint review and documentation	2	Extra Small (XS)

T-Shirt Sizing Method Reference: XS=2, S=3, M=5, L=8, XL=13

Sprint Execution: Roles and Process

Define Goal & Tasks

Focus and select backlog items.

Estimate Effort

Assign Story Points collaboratively.

Track Progress

Monitor daily status updates.

Assign Roles & Resources

Distribute team responsibilities.

Current Sprint Roles & Responsibilities

- **Scrum Master:** *Atif Awan* – Facilitates, removes impediments, ensures Scrum adherence.

- **Backend Developers:** *Ahmad Sajjad & Ahmad Hassan* – API, database, and AI model integration.

- **Frontend & UI/UX Developer:** *Huzaifa Arshad* – Dashboard visuals, UX, and feature testing.

Trello/Jira Dashboard

Visualizing sprint progress and task management.