

Design document Project 2: Budget Lens

Project description

Most people don't realize they spend \$180/month on coffee or \$300 on unused subscriptions until it's too late. BudgetLens solves this problem by providing a simple, intuitive web application that lets users quickly log expenses (under 30 seconds), set category-based budgets, and receive real-time visual feedback before overspending.

Unlike spreadsheets that get abandoned or complex financial apps that overwhelm users, BudgetLens provides instant visual feedback through color-coded progress bars and pie charts. The platform is designed to help college students manage tight budgets and families identify spending leaks, making financial awareness effortless.

User Personas

- **Freelance Designer** - Tracks business expenses for tax deductions, needs quick mobile entry
- **College Student** - Limited \$1,200/month budget, discovers small purchases add up to overspending
- **Family Budget Manager** - Controls household spending across multiple categories, saves for goals

Persona 1: Alex Rivera - The Freelance Designer

Age	28
Occupation	Freelance Graphic Designer
Income	\$3,500-5,000/month (variable)
Goals	Track business expenses separately for tax deductions, understand where personal spending goes, quick mobile-friendly entry between client meetings
Frustrations	Income varies month to month making budgeting hard, forgets to log receipts, spreadsheets are too tedious for on-the-go tracking

Usage Scenario: *Alex finishes a coffee meeting with a client and wants to log the \$12.50 expense before forgetting. Opens BudgetLens, taps Add Expense, selects 'Coffee' category, types the amount, and it's saved in under 15 seconds. Later that evening, Alex checks the*

dashboard pie chart and notices that 'Coffee' has already consumed 60% of the monthly food budget.

Persona 2: Maya Chen - The College Student

Age	21
Occupation	Computer Science Junior at Northeastern
Income	\$1,200/month (part-time job + parents)
Goals	Stay within a tight monthly budget, discover which small purchases add up, save for spring break trip
Frustrations	Doesn't realize how much is spent on food delivery and subscriptions, tried Mint but found it overwhelming, needs something simple and visual

Usage Scenario: Maya sets a \$200 food budget and a \$50 entertainment budget at the start of the month. Two weeks in, she opens the Budgets page and sees her food progress bar is yellow (at 82%). The alert tells her she's approaching her limit. She decides to cook more this week instead of ordering DoorDash, saving herself from overspending.

Persona 3: David & Sarah Park - The Family Budget Managers

Age	35 & 33
Occupation	Software Engineer & Teacher
Income	\$8,500/month combined
Goals	Control household spending across multiple categories, identify spending leaks, save \$500/month for vacation fund
Frustrations	Hard to track spending from two people, utility bills keep creeping up unnoticed, current banking apps don't give category-level budget alerts

Usage Scenario: David logs the monthly electric bill of \$185 under Utilities. Sarah checks the dashboard that evening and sees the monthly summary: Utilities already at \$420 this month, which is 90% of their \$470 budget. The red warning prompts them to review what else was categorized under Utilities and they discover they forgot to cancel an old cloud storage subscription (\$15/month).

User stories (use cases but with a story)

Kunal Sachin Takke - Expenses:

- As a user, I want to add expenses with amount/category/description/date, so I can log transactions instantly
- As a user, I want to view all expenses with category badges and totals, so I review spending history
- As a user, I want to edit or delete expenses, so I can correct mistakes
- As a user, I want to filter expenses by date range and category, so I analyze specific periods
- As a user, I want to see a pie chart of spending by category, so I understand where money goes
- As a user, I want to see a dashboard with recent expenses and monthly totals, so I get a financial snapshot

Kunal Juvvala - Budgets:

- As a user, I want to create monthly budgets for categories with spending limits, so I control spending
- As a user, I want to view budget progress with color-coded bars (green/yellow/red), so I know if I'm on track
- As a user, I want to edit or delete budgets, so I adjust to changing goals
- As a user, I want alerts when reaching 80% of budget, so I adjust before overspending
- As a user, I want to see budget status on dashboard, so I monitor all categories at once
- As a user, I want monthly summary reports showing spending vs budgets, so I review performance

Design mockups

The following wireframes illustrate the layout and structure of each page in BudgetLens. The application consists of three main pages: Dashboard, Expenses, and Budgets.

1. Dashboard Page (index.html)

Landing page showing a financial overview at a glance.

BudgetLens

[Dashboard]

[Expenses]

[Budgets]

Dashboard

Your financial overview at a glance

SPENT THIS MONTH \$1,245.00	TOTAL BUDGET \$2,800.00	REMAINING \$1,555.00	TRANSACTIONS 47
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Spending by Category

Food 35%	Transport 20%
Entertainment 15%	Shopping 12%
Groceries 10%	Other 8%

Recent Expenses

Lunch at cafe Food - 2026-02-18	-\$12.50
Uber ride Transport - 2026-02-17	-\$18.00
Netflix Subscriptions - 2026-02-15	-\$15.99
Weekly groceries Groceries - 2026-02-14	-\$87.30
Iced coffee Coffee - 2026-02-14	-\$5.75

Budget Status

Category	Spent / Limit	Progress Bar	Status
Food	\$280 / \$400	70%	On track
Transport	\$185 / \$200	93%	Warning
Coffee	\$55 / \$50	110%	Over budget
Shopping	\$120 / \$300	40%	On track
Entertainment	\$45 / \$150	30%	On track

2. Expenses Page (expenses.html)

Full CRUD for expenses with filtering by category and date range.

BudgetLens [Dashboard] [Expenses] [Budgets]				
Expenses			[+ Add Expense]	
Add New Expense (form toggles on button click)				
Amount (\$) 0.00		Category Select category ▾		
Description What did you spend on?		Date mm/dd/yyyy		
[Add Expense] [Cancel]				
Filters				
Category All Categories ▾		Start Date mm/dd/yyyy	End Date mm/dd/yyyy	[Filter] [Clear]
Total:			\$1,245.00	
Date	Description	Category	Amount	Actions
2026-02-18	Lunch at cafe	[Food]	\$12.50	[Edit] [Delete]
2026-02-17	Uber ride	[Transport]	\$18.00	[Edit] [Delete]
2026-02-15	Netflix	[Subscriptions]	\$15.99	[Edit] [Delete]
2026-02-14	Weekly groceries	[Groceries]	\$87.30	[Edit] [Delete]
2026-02-14	Iced coffee	[Coffee]	\$5.75	[Edit] [Delete]
2026-02-13	Movie tickets	[Entertainment]	\$24.00	[Edit] [Delete]

3. Budgets Page (budgets.html)

Budget management with alerts, monthly summary, and progress cards.

BudgetLens [Dashboard] [Expenses] [Budgets]			
Budgets		[+ Set Budget]	
Alerts (shown when budget is 80% or more used)			
Warning: Transport - Approaching limit! Spent \$185.00 of \$200.00 limit (93%)			
Over Budget: Coffee - Over budget! Spent \$55.00 of \$50.00 limit (110%)			
Set New Budget (form toggles on button click)			
Category Select category ▾	Monthly Limit (\$) 0.00	Month 2026-02	
[Set Budget] [Cancel]			
TOTAL BUDGET \$2,800.00	TOTAL SPENT \$1,245.00	ON TRACK 7	OVER BUDGET 1
Budget Progress			
Food 2026-02		Transport 2026-02	
Spent: \$280.00	Limit: \$400.00	Spent: \$185.00	Limit: \$200.00