SmartPay Advisor

Make Spending Smarter, Safer & Simpler

A Smart Payment Recommendation

Assistant

By: Yash Raj

Date: June 29, 2025

What is SmartPay Advisor?

SmartPay Advisor is an intelligent assistant designed to help users pick the **best payment method** for every purchase — whether it's UPI, Card, or Wallet.

It uses a **rule-based decision system** to recommend the method that gives:

- Maximum cashback or savings
- Safe balance availability
- Simplicity with zero confusion

SmartPay Advisor eliminates the guesswork in choosing how to pay. It's fast, reliable, beginner-friendly, and future-ready.

Problem & Motivation

Problem:

In today's fast-paced digital payment world, users often lose out on savings due to choosing the wrong payment method. Cashback offers, wallet discounts, UPI limits, and transaction charges are often overlooked or unknown during payment.

Motivation:

Inspired by this common frustration, I designed SmartPay Advisor to help users make **instant**, **optimized**, **and smarter payment decisions**. Whether it's a wallet cashback or a card offer, the goal is to ensure the user always benefits the most — with no guesswork.

Solution & How It Works

SmartPay Advisor collects just 6 inputs from the user:

- Category of the purchase
- Transaction amount
- Wallet offer
- Card cashback
- UPI usage pattern
- Available balances (wallet + card)

Based on logic:

- Recommend **Card** if cashback ≥ 3% and sufficient limit
- Recommend Wallet if wallet offer ≥ 3% and enough balance
- Recommend UPI if amount ≤ ₹500 and user is a frequent
 UPI user
- X If none match, fallback = Card

This rule-based decision engine helps users choose the **best method in seconds**.



Working Prototypes (POCs)

We built two working demos to validate the idea:

1. Excel Prototype:

- Uses IF statements and conditional formatting
- Automatically suggests the best method

Beginner-friendly and easy to use

1		SmartPay Advisor – Payment Recommendation Simulator						
2	Category	Category	Category	Category	Category	Category	Category	Category
3	Food	300	5	1	Yes	500	2000	Wallet
4	Gadgets	8000	0	5	No	600	10000	Card
5	Recharge	149	0	0	Yes	100	500	UPI
6	Bills	1200	3	2	Yes	1300	3000	Wallet
7	Travel	5000	2	4	No	4000	10000	Card
8								
9	SmartPay Logic - How Recommendations Are Made:							
10	Card is recommended if cashback ≥ 3% and card limit ≥ amount							
11	Wallet is recommended if wallet offer ≥ 3% and wallet balance ≥ amount							
12	UPI is	used if the	user is a frequen					
13	If none of these apply, fallback method = Card							

2. Python CLI Tool:

- Command-line interaction for developers
- Real-time decision recommendation
- Uses logical conditions from payment inputs

```
smartpay cli.py >
def smartpay_advisor():
    category = input("Enter purchase category: ")
    amount = float(input("Enter the amount: ₹"))
    wallet_offer = float(input("Enter wallet offer (%): "))
    card_cashback = float(input("Enter card cashback (%): "))
   is_upi_user = input("Are you a frequent UPI user? (Yes/No): ").strip().lower() wallet_balance = float(input("Enter your wallet balance: ₹"))
    card_limit = float(input("Enter your card limit: ₹"))
    print("\n | Analyzing best payment method...\n")
    if card_cashback >= 3 and card_limit >= amount:
       recommendation = "Card"
    elif wallet_offer >= 3 and wallet_balance >= amount:
       recommendation = "Wallet'
    elif is_upi_user == "yes" and amount <= 500:
       recommendation = "UPI"
        recommendation = "Card"
    print(f" 
Recommended Method for {category}: {recommendation}")
smartpay_advisor()
```

♦ Unique Selling Points (USPs)

Feature	SmartPay Advisor	Other Expense Trackers
Recommends best method	• Yes	• 💥 No
Cashback/fee logic	• Yes	• 💥 No
Personalization (habits)	• Yes	• 🛆 Partial
Beginner-friendly	Very Simple	• 🛕 Medium
Scalable (Al/API)	• 🔽 Ready	

This is more than an expense tracker — it's a real decision-making assistant.



Tech Stack & POCs Used

- Excel: Logic simulation using formulas
- Python: CLI with input-based logic engine
- **Snipping Tool:** To capture screenshots for demo
- (Optional) React Native / Node.js for app mockups

POCs Built:

- Excel Smart Simulator
- Python Command-Line Advisor
- Visual Screenshots

Future Scope & Scalability

SmartPay Advisor is designed with scalability in mind.

What's next:

- Real-time integration with UPI/bank APIs for live cashback/charges
- Al-based recommendation engine using past user spending behavior
- Voice-enabled assistant using SpeechRecognition APIs: "How should I pay?"
- Full mobile app version with seamless UX
- Spending analytics with alerts, graphs & custom categories

Conclusion: SmartPay Advisor brings the power of logic, personalization, and simplicity to every payment. It's more than a hackathon tool — it's a vision toward smarter digital financial behavior.



SmartPay Advisor – Making Payments Safer, Smarter & Simpler

Watch the Demo:

https://www.loom.com/share/1e24c5e709df4d04aa8289df20f8c2c2?sid=e071 25dc-2f94-4758-a410-9a17b2cf24ab

By: Yash Raj