PAYSTREAM

Problem Statement

PS No. 2

Eliminating delayed payroll, improving income liquidity, and reducing the cost of on-chain salary payments.

Our Solution

Real-time, per-second income streaming on HeLa Network using HLUSD.

Team TriVerse

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A programmable payroll protocol for the real-time Web3 economy.

From Delayed Salaries → Real-Time Financial Access

PROBLEM BLOCK

Traditional payroll systems:

- Salaries are locked in monthly cycles
- Employees cannot access income they have already earned
- Gig workers face cash-flow gaps

Existing blockchain payroll solutions:

- High gas fees
- Complex user experience
- No automated tax handling

Impact Line: Lack of real-time income access reduces financial flexibility for modern digital workers.

SOLUTION BLOCK

PayStream enables:

1. HR deposits salary funds into smart contract
2. Salary accrues per second for each employee
3. Employees view live earned balance
4. Withdraw anytime functionality
5. Automatic tax deduction to Tax Vault
6. Low-cost execution on HeLa Testnet

⬜ Technical Working Formula:

Accrued Salary = Rate × (Current Time – Last Withdrawal Time)

WORKED EXAMPLE:

Monthly Salary = ₹30,000

Seconds in 30 days = 2,592,000

Per-second salary: 30000 / 2,592,000 = ₹0.01157/sec

After 1 hour of work: 3600 × 0.01157 ≈ ₹41.65 earned and withdrawable.

This demonstrates real-time income generation.

System Design & Implementation Plan
ARCHITECTURE FLOW

HR Dashboard

Smart Contract

HeLa Network

Employee Wallet

Component Descriptions:

Smart Contract:

- Stores payroll streams
- Calculates real-time accrual
- Handles withdrawals
- Transfers tax percentage

Frontend:

- HR payroll control panel
- Employee earnings dashboard

TECH STACK

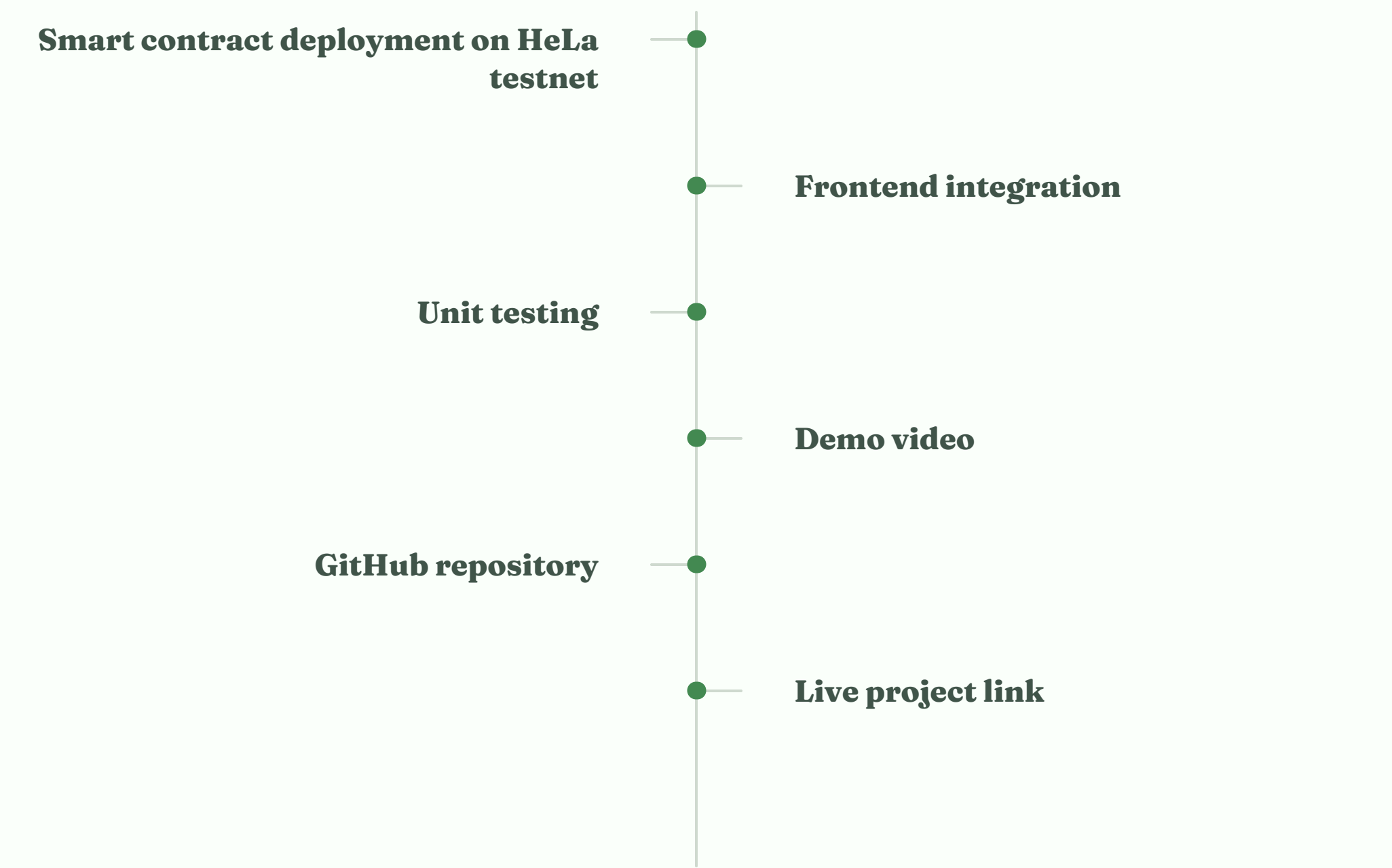**Solidity**

HeLa Testnet

React.js

ethers.js

MetaMask

Vercel / Netlify

Key Features & Roadmap

KEY FEATURES

Real-time salary tracking	Withdraw anytime
HR control dashboard	Automated tax routing
Low gas fees	Transparent payment flow

FINAL SUBMISSION PLAN

Smart contract deployment on HeLa testnet

Frontend integration

Unit testing

Demo video

GitHub repository

Live project link

Reinventing payroll with real-time, transparent, and programmable payments.

Team TriVerse – IIT Mandi