

TransCoal Innovators

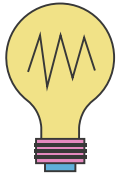
PSID : SIH-1317

Ministry : Ministry of Coal



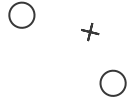
Problem Statement

Lack of Unified Platform for coal transportation



Proposed Solution

Our solution provides a unified web platform that is used to track and monitor the Coal Supply Chain



Features :



Live tracking



Dashboard alerts



Continuous Monitoring

Demonstration Prototype



Dashboard

- Live Tracking
- Mode of Transportation
- Theft Alert
- Coal health Alert



Simulating Environment

- Location Triggers
- Suspicious Activities Trigger



Real Time Model

- Video Analytics
- Camera Feed
- Location Feed
- Sensors Integration

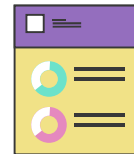


Existing Platforms

REFERENCES :

- **Railways** : Indian Railways - Freight Operation Information System (FOIS)
- **Waterways** - pcs, Kpler

Key Features



Multi-modal Platform

- Roadways
- Railways
- Waterways



Live tracking

- Location feed
- Continuous Location
- Simulated Location

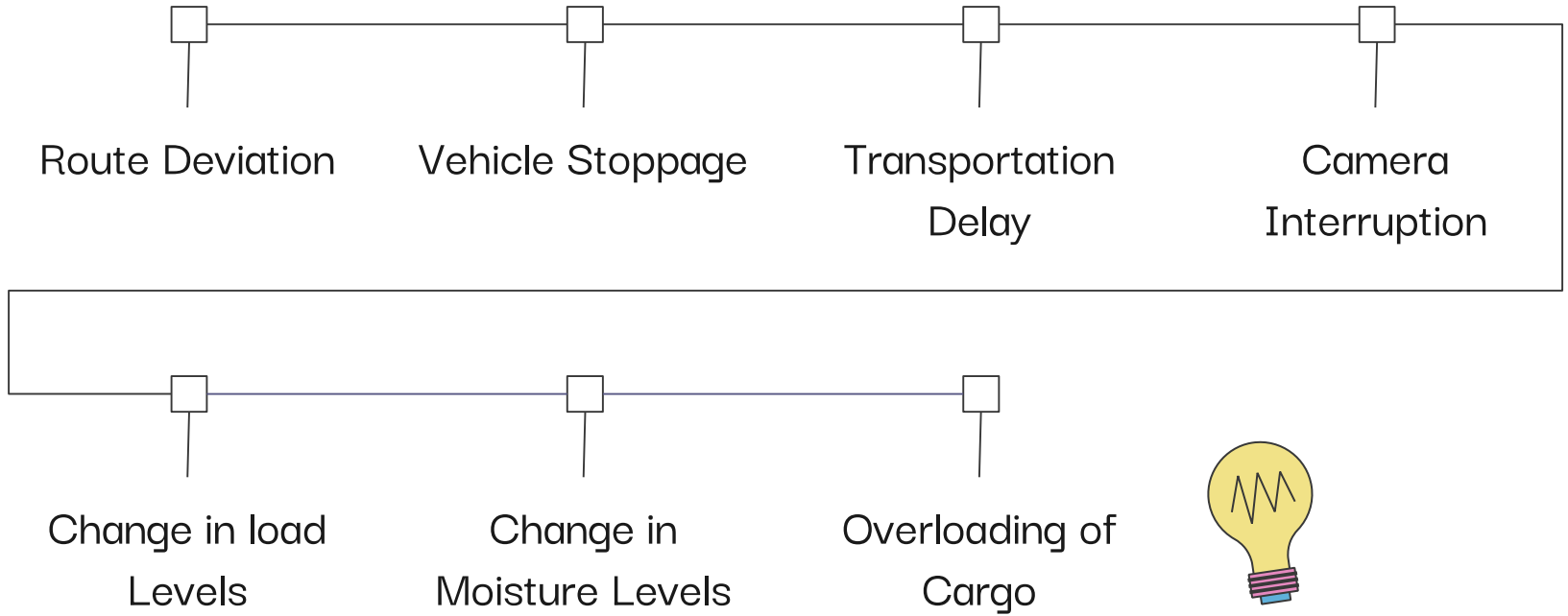
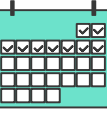


Dashboard Alerts

- Route Deviation
- Suspicious Activity

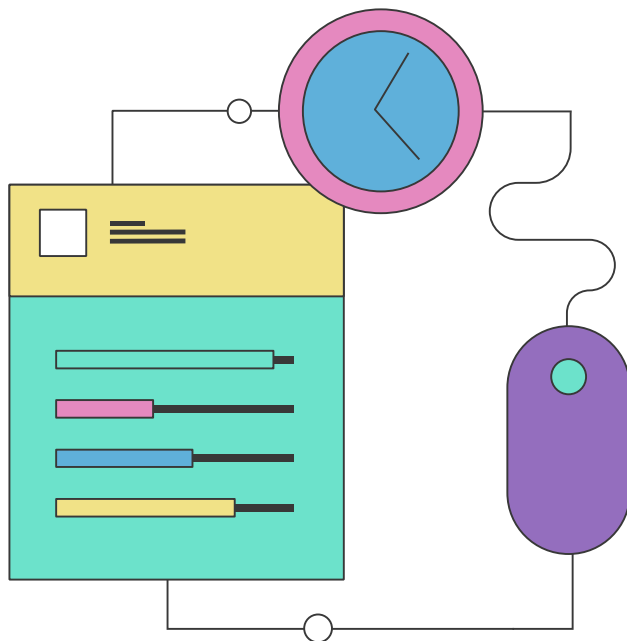


Malicious Activities





Precautional Activities



Cargo Location



Driver Information



Camera Feed

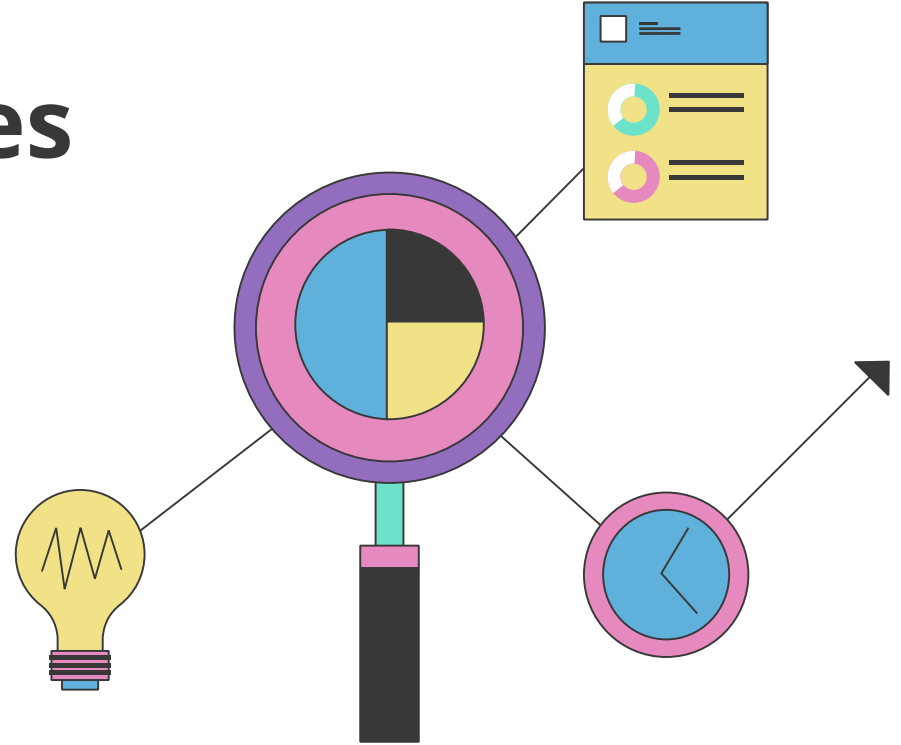
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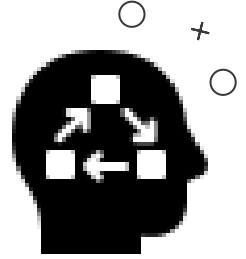
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Tools & Technologies

- ☐ MERN Stack
- ☐ Tensor flow lite (Quantized)
- ☐ Open CV
- ☐ Firebase
- ☐ Motion
- ☐ Embedded , Sensor



Types of Approach



Precise Approach

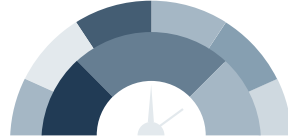
Implementing the Theft
Management Module in
the **Cargo**

Feasible Approach

Implementing the theft
Management Module in
the **Junction or Critical
Point**



Efficiency :



Precise Approach

- Accurate and data from multiple modes
- Large number of Camera involved

Feasible Approach

- Data obtained from Critical point
- Number of camera's are reduced





Theft Management

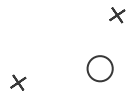
Static Monitoring System

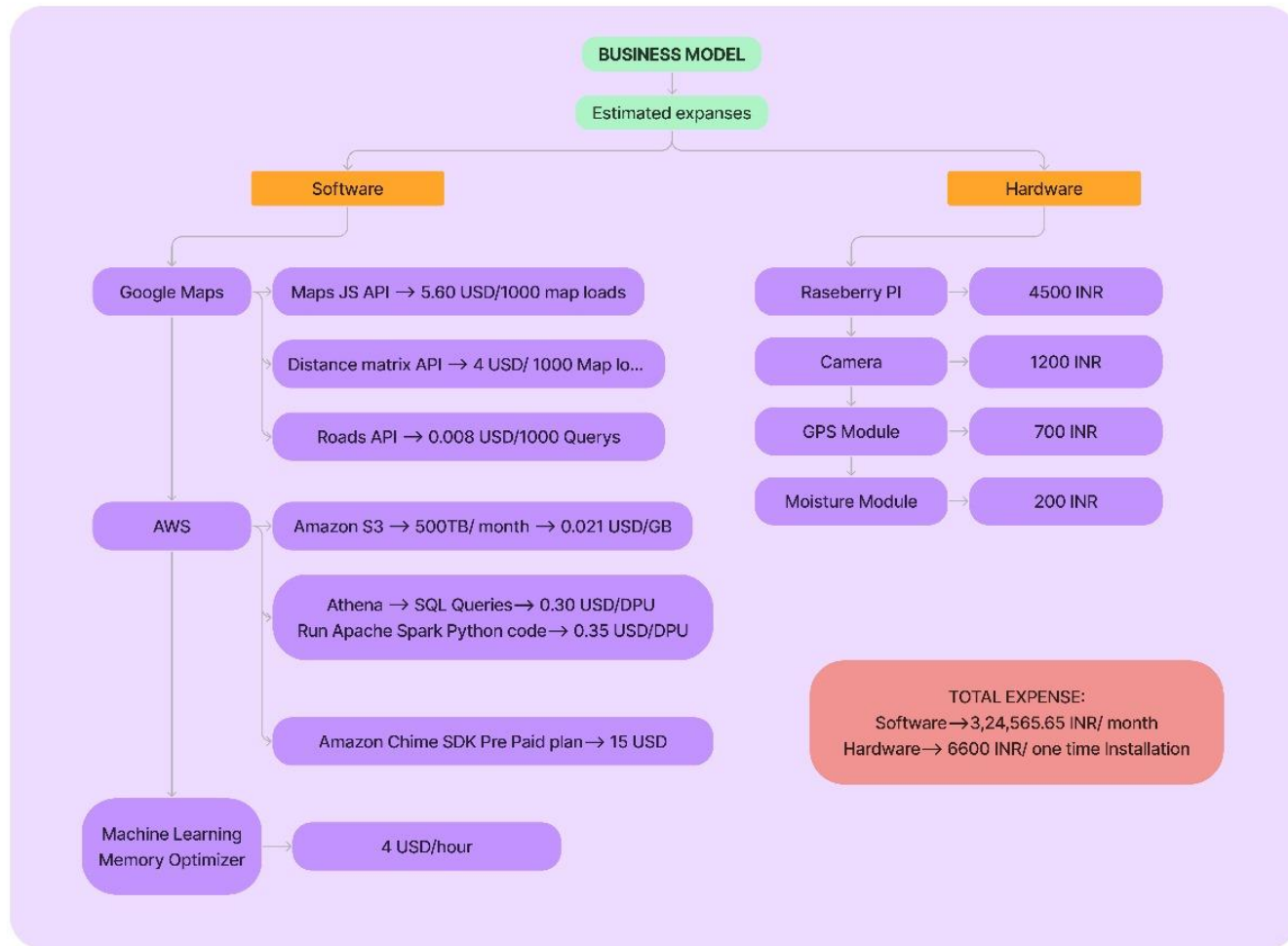


Malicious Activity



Dynamic Monitoring System





TCI GROUP'S MONTHLY BUDGET

BUDGET TOTALS	ESTIMATED
Income	8,86,278.00
Expenses	7,38,565.00
Net Profit	1,47,713.00



OVERALL EXPENSE:

EXPENSE	AMOUNT
SOFTWARE	
Google API	1,99,667.65
Amazon Web Service	1,56,398.00
Office Space	30,000.00
Developers Salary/Per Person	3,00,000.00
Network	2,500.00
Miscellaneous Expense	50,000.00
Total	7,38,565.65

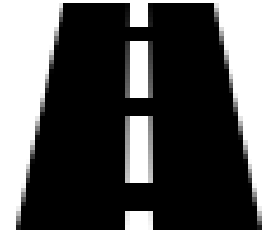


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Roadways ?

- Conventional Method
- Conveyor belt and trams
- Camera Implementation
- Moisture Tracking
- 17% of loss occurred in Roadway Transportation
 - **Intentional Accidents**
 - **Theft Occurred**



➤ **This Technology is Adoptable with Railways.**

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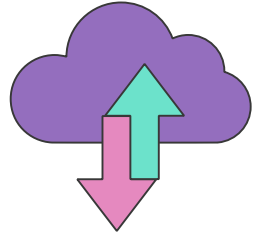
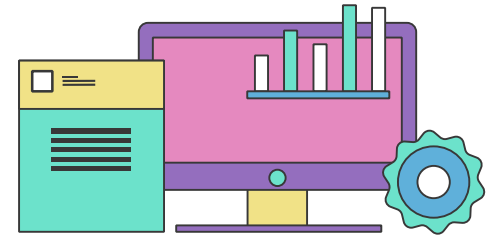
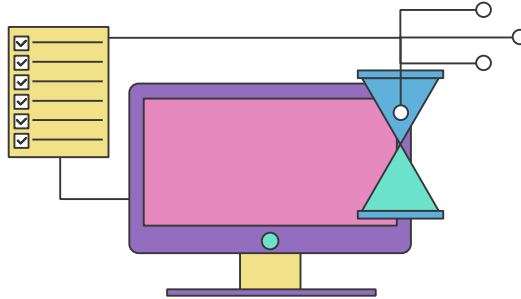
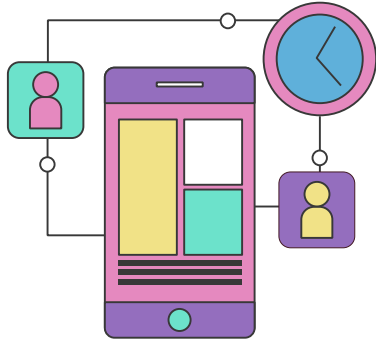
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Thank you Open to your Queries



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