CODE FUSION 2026

Problem Statement

All Problem Statements

#	Problem Title	Domain
01	**GriefBridge** *The Bereavement Support Navigator*	Social Impact
02	**CreditLens** *The SME Loan Readiness Coach*	Business / E-commerce
03	**HarvestIQ** *The Crop Yield Risk Forecaster*	Sustainability
04	**PermitFlow** *The Construction Compliance Autopilot*	Smart Cities
05	**MeetMind** *The Meeting ROI Optimiser*	Productivity / Tools
06	**VitalScan** *The Proactive Health Monitor*	Healthcare
07	**SkillBridge** *The Adaptive Career Navigator*	Education / Productivity
08	**EcoRoute** *The Sustainable Logistics Optimizer*	Sustainability / Business
09	**UrbanSense** *The Community Safety Predictor*	Smart Cities / Social Impact
10	**MediSync** *The Invisible Health Ledger*	Healthcare
11	**CogniPath** *The Misconception Mapper*	Education
12	**WasteLens** *The Circular Economy Scout*	Sustainability / Environment
13	**PulseGrid** *The Predictive Public Transit Balancer*	Smart Cities
14	**VeritasFlow** *The Information Diet Coach*	Social Impact / Productivity
15	**Global Ontology Engine** *Unified Intelligence Graph for Strategic Decision-Making*	Geopolitics / National Strategy

#01 GriefBridge *The Bereavement Support Navigator*

Social Impact

PROBLEM DESCRIPTION

People experiencing grief , from job loss, divorce, or death of a loved one , face a fragmented landscape of support: therapy waitlists, scattered NGOs, generic hotlines, and stigma around reaching out. There is no unified, context-aware digital companion that helps someone understand what they are feeling, maps available professional and community resources nearby, and provides adaptive micro-support between formal sessions.

EXPECTED SOLUTION

Build a digital companion that allows users to privately log emotions through text or voice. The system identifies emotional patterns over time and surfaces verified local support resources , therapists, support groups, and NGOs , based on the user's location and context. It provides adaptive micro-support between formal sessions and proactively checks in when sentiment patterns suggest deterioration.

KEY FOCUS AREAS

- Mental Health & Grief Support
- Geospatial Resource Mapping
- Emotion Trend Detection
- Community Integration

#02 CreditLens *The SME Loan Readiness Coach*

Business / E-commerce

PROBLEM DESCRIPTION

Small and medium enterprises in emerging markets are denied loans not because they are unprofitable, but because they lack formal financial documentation. Traditional bank scorecards require years of audited accounts, which most micro-businesses cannot produce. Entrepreneurs waste months preparing applications only to receive opaque rejections with no guidance on what to fix.

EXPECTED SOLUTION

Develop a platform where SME owners can upload informal financial data , receipts, invoices, transaction histories, handwritten ledgers , and receive a structured creditworthiness assessment. The system should identify the key weaknesses in their application and generate a personalized action plan with clear milestones to improve their loan-readiness over time.

KEY FOCUS AREAS

- Document Parsing & Structuring
- Creditworthiness Assessment
- Explainable Scoring
- SME Financial Literacy

#03 HarvestIQ *The Crop Yield Risk Forecaster*

Sustainability

PROBLEM DESCRIPTION

Smallholder farmers make high-stakes planting, irrigation, and pesticide decisions based on intuition or outdated almanacs. They have no affordable access to satellite imagery analysis, soil degradation trends, or localised micro-climate forecasts. A single miscalculated season can push a family into debt. Meanwhile, agricultural extension workers are vastly outnumbered and cannot visit every farm.

EXPECTED SOLUTION

Create an accessible tool (with offline/SMS fallback support) that helps farmers assess weekly crop yield risks , drought, pest, flood , based on their location, crop type, and land conditions. The system should integrate publicly available satellite and weather data to generate actionable irrigation schedules and advisory messages in the farmer's local language.

KEY FOCUS AREAS

- Agricultural Risk Assessment
- Satellite & Remote Sensing Data
- Multilingual Advisory Output
- Low-Bandwidth Accessibility

#04 PermitFlow *The Construction Compliance Autopilot*

Smart Cities

PROBLEM DESCRIPTION

Urban developers and small contractors lose months navigating inconsistent, paper-heavy municipal permit workflows. Zoning rules, structural safety codes, and environmental clearances are scattered across siloed government portals with different formats. A single missing document triggers full re-submission cycles, stalling housing projects and infrastructure work , directly worsening urban housing shortages.

EXPECTED SOLUTION

Build a platform where contractors can upload project blueprints and site details to receive an automated compliance gap report cross-referenced against applicable zoning and building codes. The system should auto-populate relevant government forms, track permit status, and guide users through the exact documentation needed to avoid rejections.

KEY FOCUS AREAS

- Regulatory Knowledge Management
- Document Understanding
- Compliance Gap Detection
- Process Automation

#05 MeetMind *The Meeting ROI Optimiser*

Productivity / Tools

PROBLEM DESCRIPTION

Organisations haemorrhage thousands of hours annually in unproductive meetings , no agenda, unclear owners, duplicate discussions, and zero follow-through. Calendar analytics show when meetings happen but tell nothing about what they cost or whether they should exist at all. Managers have no tool to audit meeting culture, redistribute decision-making, or automatically surface recurring agenda items that could be resolved asynchronously.

EXPECTED SOLUTION

Build a dashboard that integrates with calendar and communication tools to analyze meeting patterns across an organization. The system should identify recurring discussion themes, calculate the true cost of meeting types, flag meetings that could be replaced with asynchronous alternatives, and provide actionable recommendations to reduce unnecessary synchronous time.

KEY FOCUS AREAS

- Meeting Analytics
- Cost & ROI Estimation
- Async vs Sync Decision Support
- Organizational Productivity

#06 VitalScan *The Proactive Health Monitor*

Healthcare

PROBLEM DESCRIPTION

Many individuals , especially those with chronic conditions or elderly populations , struggle to consistently track vital signs and health metrics. Manual logging is often inconsistent, and subtle changes that could indicate worsening health are frequently missed until a crisis occurs. There is a critical need for an accessible system that can passively monitor health trends and provide early, actionable insights to both patients and caregivers.

EXPECTED SOLUTION

Develop an application that collects continuous health data from wearable devices and detects deviations from an individual's personal baseline. The system should generate proactive alerts and health recommendations for both users and their designated caregivers, with a broader overview dashboard accessible to family members or healthcare providers.

KEY FOCUS AREAS

- Wearable Device Integration
- Anomaly Detection in Vital Signs
- Caregiver & Patient Notifications
- Predictive Health Risk Assessment

#07 SkillBridge *The Adaptive Career Navigator*

Education / Productivity

PROBLEM DESCRIPTION

The rapidly evolving job market means that skills quickly become outdated, and individuals often lack clear guidance on what new skills to acquire for career advancement or transitions. Existing career platforms offer static job descriptions but fail to provide dynamic, personalized learning pathways based on an individual's current skill set, desired career trajectory, and real-time market demand.

EXPECTED SOLUTION

Build a platform where users input their current skills, experience, and career goals to receive a personalized learning roadmap. The system should analyze real-time job market data to identify skill gaps and recommend specific courses, certifications, or projects that bridge those gaps. Optionally, the platform could connect users with mentors in their target field.

KEY FOCUS AREAS

- Skill Gap Analysis
- Job Market Intelligence
- Personalized Learning Pathways
- Mentor Matching

#08 EcoRoute *The Sustainable Logistics Optimizer*

Sustainability / Business

PROBLEM DESCRIPTION

Last-mile delivery and urban logistics contribute significantly to carbon emissions and traffic congestion. Businesses , especially SMEs , often lack the tools to optimize their delivery routes for environmental impact and efficiency. Current routing solutions prioritize speed or cost but rarely integrate real-time environmental factors or suggest greener alternatives.

EXPECTED SOLUTION

Develop a route planning tool for delivery businesses that calculates optimal routes considering traffic patterns, vehicle emissions, road gradients, and real-time environmental data. The system should present multiple route options highlighting the most fuel-efficient paths and provide a dashboard to track and visualize the organization's cumulative environmental impact.

KEY FOCUS AREAS

- Green Route Optimization
- Emissions Modeling
- Traffic & Environmental Data Fusion
- Logistics Impact Visualization

#09 UrbanSense *The Community Safety Predictor*

Smart Cities / Social Impact

PROBLEM DESCRIPTION

Urban safety is a complex issue influenced by numerous factors, yet city planners and community organizations often react to incidents rather than proactively addressing underlying risks. Public safety data is frequently siloed, making it difficult to identify emerging patterns or predict areas prone to petty crime, public health hazards, or infrastructure failures.

EXPECTED SOLUTION

Create a platform that integrates diverse urban data sources , anonymized incident reports, social sentiment, infrastructure sensor data, weather patterns , to identify correlations and predict potential safety hotspots within specific urban zones. A dashboard should allow city officials to deploy resources proactively, with a mobile-facing interface for resident awareness.

KEY FOCUS AREAS

- Urban Data Fusion
- Geospatial Risk Prediction
- Social Sentiment Analysis
- Proactive Resource Allocation

#10 MediSync *The Invisible Health Ledger*

Healthcare

PROBLEM DESCRIPTION

Patients visiting multiple specialists, pharmacies, and diagnostic centers face fragmented medical records. Critical allergies, past prescriptions, and test results are often siloed or lost, leading to dangerous drug interactions and redundant testing. In emergencies, clinicians lack real-time access to a patient's complete health narrative.

EXPECTED SOLUTION

Build a secure platform that aggregates disparate health records into a unified, patient-controlled timeline. The system should parse unstructured clinical documents, PDFs, scans, doctor notes, into structured, queryable data, and flag potential drug conflicts or abnormal health trends across the timeline. Role-based access should allow patients to selectively share records with clinicians.

KEY FOCUS AREAS

- Medical Record Aggregation
- Clinical Document Parsing
- Drug Conflict Detection
- Patient-Controlled Data Access

#11 CogniPath *The Misconception Mapper*

Education

PROBLEM DESCRIPTION

Traditional learning platforms treat wrong answers as failures rather than diagnostic signals. When a student consistently misses algebra problems, the system does not distinguish between a sign error and a fundamental misunderstanding of variables, leading to generic, ineffective remediation.

EXPECTED SOLUTION

Develop an interactive tutoring platform that captures granular interaction data during problem-solving, keystrokes, drawings, time per step ,and classifies the type of misconception in real time. The system should dynamically generate targeted micro-lessons and alternative explanations adapted to each student's specific cognitive gap.

KEY FOCUS AREAS

- Behavioral Interaction Capture
- Misconception Classification
- Adaptive Learning Content
- Real-time Cognitive Gap Analysis

#12 WasteLens *The Circular Economy Scout*

Sustainability / Environment

PROBLEM DESCRIPTION

Small and medium recycling facilities struggle to identify, sort, and price heterogeneous waste streams accurately. Contaminated batches ruin entire loads, and valuable recoverable materials are landfilled due to misclassification. There is no accessible tool for these facilities to assess the resale value of sorted materials in real time.

EXPECTED SOLUTION

Create a mobile-first application where facility workers photograph waste items or bulk piles to receive instant classification of material type, contamination levels, and purity estimates. The system should cross-reference live commodity markets to suggest optimal sorting strategies and predicted resale value, turning waste management into a data-driven operation.

KEY FOCUS AREAS

- Computer Vision for Material Classification
- Contamination Detection
- Purity Estimation
- Live Market Data Integration

#13 PulseGrid *The Predictive Public Transit Balancer*

Smart Cities

PROBLEM DESCRIPTION

City buses run on fixed schedules that ignore real-world demand fluctuations, resulting in overcrowded routes during unexpected events and near-empty buses burning fuel on quiet corridors. Transit agencies lack tools to dynamically rebalance fleet deployment before problems cascade.

EXPECTED SOLUTION

Build an operations dashboard paired with a commuter-facing mobile interface. The system should ingest multimodal data, ridership history, weather, event calendars, traffic sensors, to forecast demand surges and drops at the route and stop level 30–60 minutes ahead, then recommend real-time fleet reallocation and push proactive passenger notifications about alternatives.

KEY FOCUS AREAS

- Demand Forecasting
- Fleet Reallocation Optimization
- Multimodal Data Fusion
- Passenger Communication

#14 VeritasFlow *The Information Diet Coach*

Social Impact / Productivity

PROBLEM DESCRIPTION

Information overload and algorithmic amplification are eroding collective attention and mental well-being. Users want to stay informed without falling into doom-scrolling or filter bubbles, but no existing tool helps them audit what they consume, how it affects their mood, and what perspectives they might be missing.

EXPECTED SOLUTION

Develop a tool, browser extension or mobile wrapper, that passively tracks content consumption patterns with user consent. The system should generate a personal information diet report, detect emerging filter bubbles, and proactively suggest diverse, high-quality counter-perspective content to foster more balanced media consumption.

KEY FOCUS AREAS

- Content Consumption Analytics
- Sentiment & Topic Analysis
- Filter Bubble Detection
- Perspective Diversification

#15 Global Ontology Engine *Unified Intelligence Graph for Strategic Decision-Making*

Geopolitics / National Strategy

PROBLEM DESCRIPTION

Decision-makers in government, policy, defense, and research operate in a world of accelerating complexity , where geopolitical shifts, economic signals, technological breakthroughs, climate events, and societal changes are deeply interconnected but rarely analyzed together. Data arrives in fragmented forms: structured databases, live news feeds, satellite imagery, academic papers, and social discourse,none of which are integrated into a coherent, evolving picture. There is no unified system that can continuously collect, interpret, and connect this information into actionable intelligence, leaving strategic decisions to be made with incomplete, siloed, or stale data.

EXPECTED SOLUTION

Design and develop a system that can collect and make sense of structured data, unstructured content, and live real-time feeds spanning geopolitics, economics, defense, technology, climate, and society, and connect all of it into a single, unified, continuously updating intelligence graph. The system should enable decision-makers to query relationships between entities and events, surface non-obvious connections, track how situations evolve over time, and generate clear strategic insights for transparency, policy planning, and national advantage. The solution should be built with India's strategic context in mind while remaining applicable to global use cases.

KEY FOCUS AREAS

- Multi-domain Data Integration
- Knowledge Graph Construction
- Real-time Intelligence Synthesis
- Strategic Decision Support
- Geopolitical & Economic Signal Processing