



DJ InIT. AI
Devising Intelligence for Tomorrow

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PROBLEM STATEMENT 1

SMART TASK MANAGEMENT DASHBOARD FOR FACILITY TEAMS

PART 2

EXTENDED PROBLEM STATEMENT

YOUR DASHBOARD SHOULD NOT ONLY PREDICT MISSED TASKS BUT ALSO PROVIDE ACTIONABLE INSIGHTS. ENHANCE YOUR DASHBOARD BY:

- MAKING PREDICTIONS EXPLAINABLE USING SHAP OR OTHER INTERPRETABILITY METHODS.
- ADDING CUSTOM FILTERING (USERS SHOULD REFINE INSIGHTS BY SELECTING SPECIFIC DATES, TASK TYPES, OR TEAMS).
- GENERATING AUTOMATED INSIGHTS BELOW EACH GRAPH TO SUMMARIZE TRENDS, KEY RISK FACTORS, AND RECOMMENDATIONS.

ADDITIONAL FEATURES TO IMPLEMENT

1. ENHANCED ML MODELING

- EXPLORE TIME-SERIES FORECASTING (PROPHET, LSTMS) FOR DEEPER INSIGHTS INTO SEASONAL PATTERNS OF MISSED TASKS.
- OPTIMIZE MODEL PERFORMANCE USING HYPERPARAMETER TUNING (GRID SEARCH, BAYESIAN OPTIMIZATION).

2. ADVANCED INTERACTIVE DASHBOARD FEATURES

- FEATURE IMPORTANCE & RISK INSIGHTS: DISPLAY KEY FACTORS CONTRIBUTING TO MISSED TASKS.
- INTERACTIVE GRAPHS WITH AI INSIGHTS: EACH VISUALIZATION SHOULD INCLUDE AUTOMATED TEXT SUMMARIES HIGHLIGHTING TRENDS AND RECOMMENDATIONS.
- CUSTOM DATE & TASK FILTERING: USERS SHOULD BE ABLE TO REFINE INSIGHTS DYNAMICALLY.

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PROBLEM STATEMENT I

3. BONUS ML FEATURES (OPTIONAL ENHANCEMENTS)

- ANOMALY DETECTION: DETECT UNUSUAL SPIKES IN TASK MISSES USING ISOLATION FORESTS OR DBSCAN.
- RESOURCE OPTIMIZATION SUGGESTIONS: RECOMMEND OPTIMAL STAFFING LEVELS BASED ON WORKLOAD PREDICTIONS.
- ADAPTIVE SCHEDULING ALERTS: NOTIFY USERS ABOUT POTENTIAL DELAYS BASED ON REAL-TIME TRENDS.
- AUTO-CLUSTERING OF TASK TYPES: USE K-MEANS OR DBSCAN TO GROUP TASKS BASED ON COMPLETION LIKELIHOOD.
- FORECASTING FUTURE TRENDS: USE PROPHET OR LSTM TO PREDICT TASK COMPLETION RATES FOR THE NEXT 30 DAYS.
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PROBLEM STATEMENT 2

EVENT DISCOVERY PLATFORM CHALLENGE

PART 2

EVENT IDEA GENERATION

DEVELOP AN AI-DRIVEN SYSTEM TO SUGGEST EVENT CONCEPTS BASED ON:

- EMERGING SOCIAL TRENDS AND CULTURAL PATTERNS
- POPULARITY GROWTH OF SPECIFIC EVENT CATEGORIES
- REGIONAL INTEREST VARIATIONS
- MARKET DEMAND ANALYSIS
- ANALYZES USER SEARCH QUERIES, REVIEWS, AND SOCIAL MEDIA SENTIMENT TO GENERATE EVENT IDEAS

ORGANIZER INTELLIGENCE SYSTEM - EXTENSION

- SMART SCHEDULING RECOMMENDATIONS BASED ON OPTIMAL TIME SLOTS FOR EVENT SUCCESS
- EXPANDED SEASONAL POPULARITY TREND ANALYSIS

BONUS FEATURES

TO ENHANCE USER ENGAGEMENT, IMPLEMENT:

- SOCIAL INTEGRATION: USERS CAN VIEW FRIENDS' EVENT ATTENDANCE
- GAMIFICATION: BADGES, LOYALTY POINTS, AND REWARDS FOR ACTIVE USERS
- DYNAMIC PRICING: EARLY BIRD, PEAK PRICING, AND GROUP DISCOUNTS, FURTHER OPTIMIZED THROUGH REAL-TIME MARKET INSIGHTS
- VOICE SEARCH: NATURAL LANGUAGE PROCESSING FOR EVENT DISCOVERY

EVALUATION CRITERIA (EXPANDED)

- EVENT TREND FORECASTING AND IDEA GENERATION (INCLUDED IN AI IMPLEMENTATION ASSESSMENT)
- TECHNICAL IMPLEMENTATION: ADDITIONAL FOCUS ON API DESIGN AND INTEGRATION
- INNOVATION: ENCOURAGEMENT FOR FEATURES BEYOND CORE REQUIREMENTS

HACKATHON

PROBLEM STATEMENT 3

AI AGENT MARKETPLACE – BUILD YOUR OWN AI WORKFLOWS

PART 2

ON THE DAY OF THE HACKATHON, PARTICIPANTS WILL USE THE PRE-BUILT WORKFLOWS AND INTEGRATE THEM INTO A FULL-FLEDGED APPLICATION WITH A PROPER FRONTEND AND WORKFLOW EXECUTION.

- USE MULTIPLE AI WORKFLOWS FROM THE PRE-BUILT ONES TO SOLVE A REAL-WORLD PROBLEM.
- DEVELOP AN INTERACTIVE AI AGENT MARKETPLACE & WORKFLOW BUILDER WITH A DRAG-AND-DROP INTERFACE.
- ENABLE USERS TO PROVIDE MULTI-INPUT DATA (PDFS, IMAGES, TEXT, URLs) FOR ENHANCED AI PROCESSING.
- SHOWCASE HOW THESE WORKFLOWS ADD VALUE IN DIFFERENT INDUSTRIES (MARKETING, FINANCE, CORPORATE, LEGAL, ETC.).

BONUS CHALLENGES

- IMPLEMENT VOICE-ACTIVATED AI AGENT EXECUTION FOR A MORE INTERACTIVE EXPERIENCE.
- ENABLE COLLABORATIVE AI AGENTIC WORKFLOWS THAT CAN INTERACT WITH EACH OTHER DYNAMICALLY.



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PROBLEM STATEMENT 3

EVALUATION CRITERIA:

- TECHNICAL IMPLEMENTATION (30%) – EFFICIENCY OF AI AGENT EXECUTION, PERFORMANCE, API INTEGRATIONS.
- AI & MACHINE LEARNING (40%) – USE OF AGENTIC AI, RAG, AI REASONING, AND ADAPTABILITY.
- UI/UX DESIGN (10%) – USER-FRIENDLINESS OF THE MARKETPLACE & WORKFLOW BUILDER.
- INNOVATION & BUSINESS POTENTIAL (20%) – REAL-WORLD APPLICABILITY, SCALABILITY, AND MONETIZATION POTENTIAL.

FINAL DELIVERABLES:

- AI AGENT MARKETPLACE & WORKFLOW BUILDER – A WEB-BASED INTERFACE TO BROWSE, COMBINE, AND UTILIZE AI AGENTIC WORKFLOWS.
- APPLICATION USING PRE-BUILT AI WORKFLOWS – SHOWCASING MULTIPLE WORKFLOWS IN ACTION WITH PROPER FRONTEND.
- MULTI-INPUT AI PROCESSING – SUPPORT FOR PDFS, IMAGES, URLs, AND TEXT INPUT.
- LIVE DEMO & DOCUMENTATION – DEMONSTRATING WORKFLOW EXECUTION AND REAL-WORLD APPLICATION POTENTIAL.



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PROBLEM STATEMENT 4

AI-POWERED FINANCIAL STATEMENT ANALYSIS

PART 2

ADVANCED FEATURES & RISK ANALYSIS

ADDITIONAL AI CAPABILITIES

AUTOMATED ANOMALY DETECTION AND RISK ASSESSMENT

- AI SHOULD IDENTIFY IRREGULARITIES SUCH AS:
 - SUDDEN REVENUE FLUCTUATIONS
 - UNUSUAL EXPENSE PATTERNS
 - HIDDEN LIABILITIES OR OFF-BALANCE-SHEET RISKS
 - FRAUDULENT FINANCIAL REPORTING INDICATORS
- COMPARATIVE BENCHMARKING WITH INDUSTRY PEERS
- BONUS FEATURES (FOR INNOVATION & BUSINESS IMPACT SCORING)
 - PREDICTIVE ANALYTICS FOR FUTURE FINANCIAL PERFORMANCE
 - SENTIMENT ANALYSIS OF MANAGEMENT COMMENTARY
 - VOICE-COMMAND-ENABLED FINANCIAL QUERYING
 - AI-POWERED BUSINESS MODEL GENERATION BASED ON INITIAL FINANCIAL DATA
 - DEPLOYMENT OF THE APPLICATION
 - DOCUMENT QUERYING CHATBOT FOR RETRIEVING AND ANALYZING FINANCIAL INSIGHTS FROM UPLOADED REPORTS

EXPANDED DELIVERABLES

- AUTOMATED ANOMALY DETECTION SYSTEM
 - AI-POWERED ANOMALY DETECTION FOR FRAUD AND RISK ASSESSMENT
 - ALERTS AND NOTIFICATIONS FOR IRREGULAR FINANCIAL PATTERNS
- CUSTOMIZABLE AI MODELS & BUSINESS MODEL GENERATOR
 - AI-GENERATED INDUSTRY-SPECIFIC BUSINESS MODELS BASED ON FINANCIAL DATA
 - CUSTOMIZABLE FINANCIAL BENCHMARKING TOOLS