PROJECT DESIGN PHASE

PROPOSED SOLUTION

Date	30/10/2025
Time id	NM2025TMID05890
Project name	Calculating Family Expenses using Service Now
Maximum mark	2 marks

Proposed solution template

S.No	Problem Area	Proposed Solution	Expected Outcome
1	Manual expense recording causes errors and delays.	Implement an automated expense tracking system that logs expenses in real-time from multiple sources.	Accurate and timely recording of all family expenses.
2	Lack of visibility into expense categories and totals.	Introduce a real-time dashboard that shows categorized expenses, budget vs actuals, and summaries.	Clear understanding of spending patterns and budget adherence.
3	Difficulty categorizing expenses correctly.	Use AI-based classification to automatically categorize and prioritize expenses.	Consistent and accurate expense categorization.

S.No	Problem Area	Proposed Solution	Expected Outcome
4	Slow manual adjustment of budgets and spending limits.	Enable automated alerts and budget adjustments when overspending is detected.	Timely budget updates and prevention of overspending.
5	Difficult tracking of individual contributions and spends.	Implement performance analytics and reporting features for each family member.	Transparent tracking of spending and contributions by member.
6	No integration with financial accounts or tools.	Develop API-based integration with bank accounts and finance apps for seamless data import.	Unified financial overview without manual data entry.
7	Risk of data inconsistency and lack of audit trail.	Add audit trails and logging for all expense entries and updates.	Secure, reliable, and auditable family financial records.

Conclusion

The designed solution effectively addresses the major challenges in ticket management by leveraging **automation, AI, and real-time analytics**. Through the integration of **intelligent ticket routing**, **automated reassignment**, and **live performance dashboards**, the system ensures faster response times, reduced manual workload, and improved accountability.

By implementing **AI-based monitoring** and **data-driven decision-making**, the project enhances visibility into agent performance and optimizes resource utilization. Furthermore, **secure audit trails** and **data encryption** strengthen system reliability and trust.

PROJECT DESIGN PHASE: Problem – Solution Fit

S.No	Problem Area	Proposed Solution / Design Decision	Expected Outcome / Benefit
1	Automatic Ticket Assignment Causes Delays	Implement an automated ticket routing system using intelligent algorithms to assign tickets based on agent skill, workload, and availability.	Reduced response time and balanced workload among agents.
2	Priority Handling Inefficiency	Introduce a real-time dashboard to monitor and prioritize tickets dynamically.	Reduced turnaround time and improved accountability.
3	Manual Reassignment Errors	Use classification models and automated reassignment logic for ticket routing.	Accurate ticket allocation and faster resolution.
4	Agent Availability Tracking	Integrate AI-powered dashboards to track agent status and workload in real-time.	Timely escalation handling and improved customer satisfaction.
5	Performance Monitoring Gaps	Develop automated escalation workflows with analytics-based tracking.	Timely escalations and better performance visibility.

S.No	Problem Area	Proposed Solution / Design Decision	Expected Outcome / Benefit
6	Security & Data Integrity	Implement data encryption and secure audit trails in the live dashboard.	Improved system security, trust, and compliance.

Design Justification

The system leverages automation, AI-based dashboards, and intelligent algorithms to optimize workload management. These solutions ensure:

- **Timely ticket resolution and accurate reassignment.**
- **Transparent audit trails for accountability.**
- **Enhanced performance tracking through dashboards.**
- **Secure and efficient data handling mechanisms.**

By integrating these design elements, the project ensures that operational efficiency, transparency, and customer satisfaction are improved while maintaining optimal workload distribution.