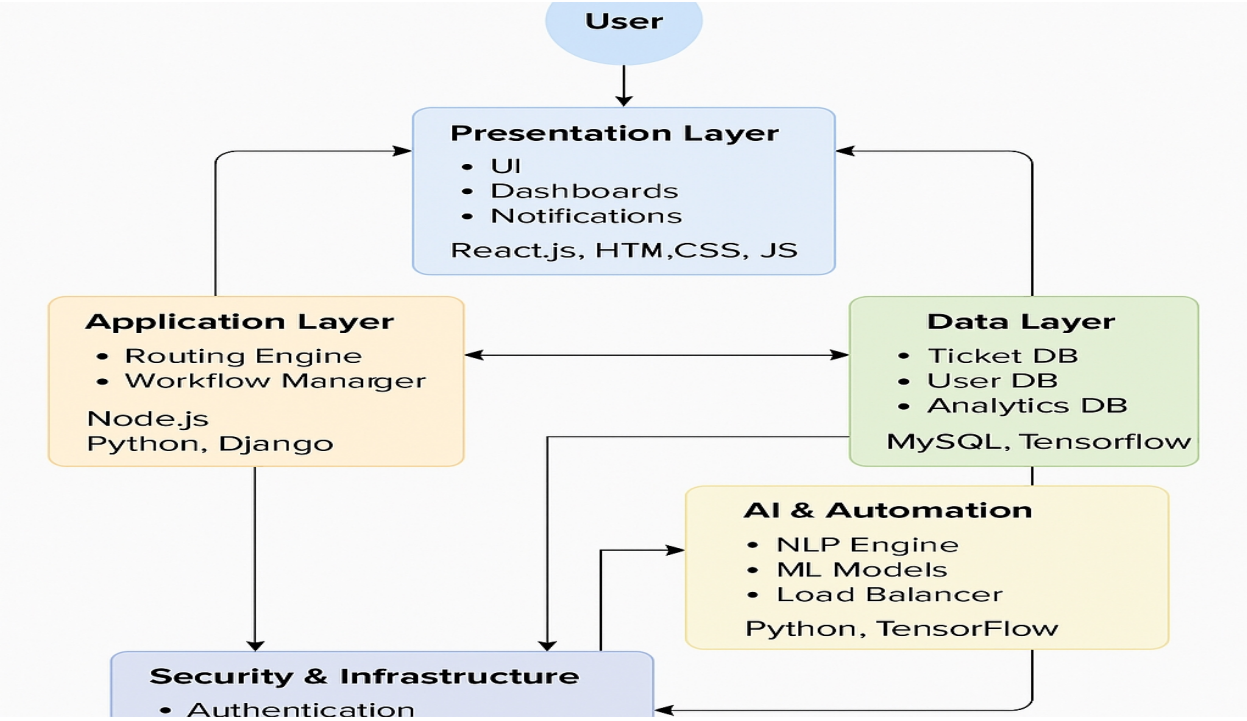
PROJECT DESIGN PHASE 2

TECHNOLOGY STACK (ARCHITERTURE& STACK)

Date	02 NOVEMBER 2025
Team ID	NM2025TMID01377
Project Name	Streamlining Ticket Assignment for Efficient Support Operations
Maximum Mark	4 Marks

Technical Architecture:

The technical architecture for the Streamlining Ticket Assignment for Efficient Support Operations project is designed as a modular, scalable, and secure system to ensure efficient automation and data-driven decision-making. It follows a three-tier architecture consisting of the Presentation Layer, Application Layer, and Data Layer, supported by intelligent automation and analytics modules.



Components and Technologies:

Layer	Components	Technologies / Tools
1. Presentation Layer	- User Interface (UI)- Dashboards- Notification Center- Reporting & Analytics Views	HTML5, CSS3, JavaScript, React.js / Angular, REST APIs
2. Application Layer	- Ticket Routing Engine- Workflow Manager- Notification Service- Integration Module	Node.js, Python (Flask / Django), Express.js, Java Spring Boot
3. Data Layer	- Ticket Database- User Database- Analytics Database- Logging & Audit Database	MySQL, PostgreSQL, MongoDB, Firebase
4. AI & Automation Layer	- NLP Engine- Machine Learning Model- Load Balancer	Python, TensorFlow, Scikit-learn, spaCy, NLTK
5. Security & Infrastructure Layer	- Authentication & Authorization- Data Encryption- Cloud Deployment- Backup & Recovery	OAuth 2.0 / JWT, SSL/TLS, AWS / Azure, Docker, Kubernetes
6. Monitoring & Reporting Layer	- System Monitoring Tools- Performance Metrics Dashboard- Log Management	Grafana, Kibana, Prometheus, Power BI