

Project Design Phase-II Technology Stack (Architecture & Stack)

Date	16 February 2026
Team ID	LTVIP2026TMIDS73212
Project Name	ResolveNow - Online Complaint Registration and Management System
Maximum Marks	4 Marks

Technical Architecture:

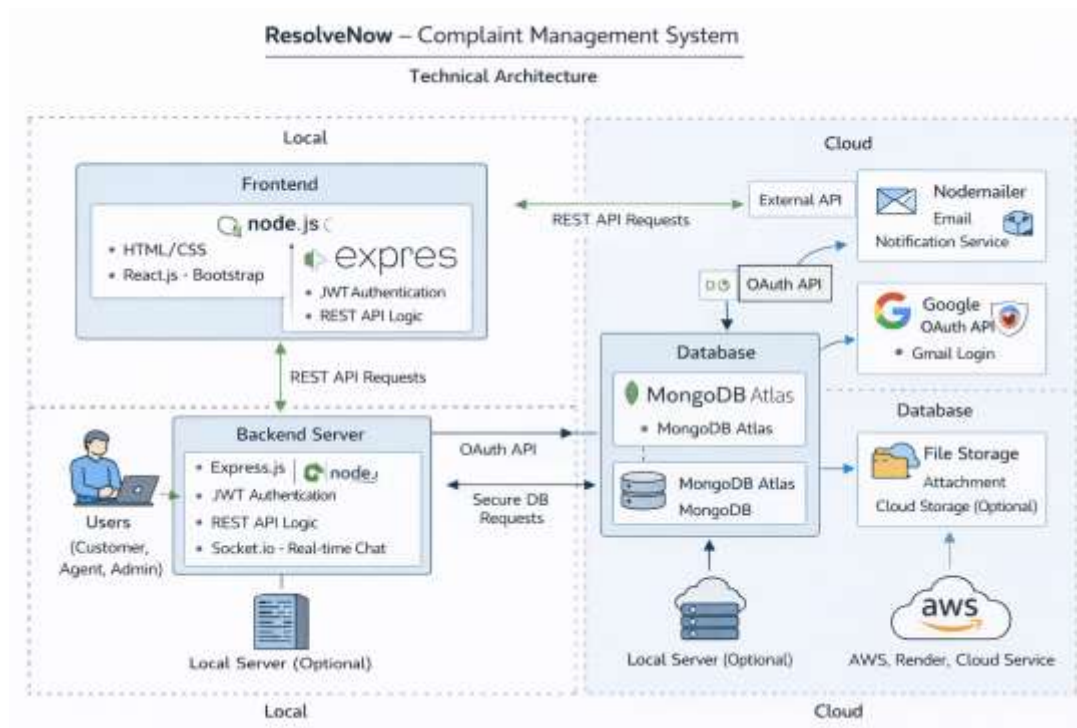


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Web application for Users, Agents & Admin	HTML, CSS, React.js, Bootstrap
2	Application Logic-1	Authentication & Authorization Logic	Node.js, Express.js, JWT
3	Application Logic-2	Complaint Processing & Assignment	Express.js REST APIs
4	Application Logic-3	Real-time Chat	Socket.io
5	Database	Complaint & User Data Storage	MongoDB
6	Cloud Database	Cloud Hosted Database	MongoDB Atlas
7	File Storage	Store complaint attachments	Local Storage / Cloud Storage
8	External API-1	Email Notification Service	Nodemailer
9	External API-2	OAuth Login Service	Google OAuth API
10	Machine Learning Model	Future scope – Auto Categorization	Optional AI Model
11	Infrastructure	Deployment Environment	Local Server / Cloud (AWS/Render)

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	MERN Stack used	React, Node.js, Express, MongoDB
2	Security Implementations	Authentication, Encryption, Access Control	JWT, bcrypt, Role-based access
3	Scalable Architecture	3-tier architecture	MERN Stack
4	Availability	Cloud-based deployment	AWS / Render
5	Performance	Optimized APIs & DB indexing	MongoDB indexing