**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| Date | 20-06-2025 |
| Team ID | LTVIP2025TMID41759 |
| Project Name | Resolve Now |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

Resolve Now is developed with a scalable 3-tier architecture that ensures modular development, maintainability, and performance:  
  
● **Presentation Layer (Frontend):** Provides an intuitive and responsive interface for users and administrators to submit, track, and manage complaints efficiently. Built with **React.js**, Bootstrap, and responsive design principles to ensure cross-device compatibility.

**● Business Logic Layer (Backend):** User authentication and role-based authorization

* Complaint lifecycle management (submission, routing, status updates)
* Admin operations like assignment, filtering, and analytics
* Notification and feedback workflow

● **Data Storage Layer:** User credentials and profiles

* Complaint records with status history and timestamps
* Admin notes, feedback, and analytics logs

The platform integrates with third-party APIs for notifications (SMS/email), payment processing, and book recommendation engines to enhance usability.

**Table-1: Components & Technologies:**

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| --- | --- | --- | --- |
| **S. No** | **Component** | **Description** | **Technology** |
| **1.** | **User Interface** | **Web and mobile-friendly interface for complaint submission and tracking** | **HTML, CSS, JavaScript / React.js** |
| **2.** | **Application Logic-1** | **Complaint filing, real-time tracking, user profile and feedback handling** | **Node.js, Express.js** |
| **3.** | **Application Logic-2** | **Admin dashboard for complaint management, status updates, analytics** | **React.js, Node.js** |
| **4.** | **Database** | **Stores user accounts, complaints, status logs, feedback, and audit trails** | **MongoDB** |

**Table-2: Application Characteristics:**

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| --- | --- | --- |
| **S. No** | **Characteristics** | **Description Technology** |
| **5.** | Open-Source Frameworks | Frontend frameworks React.js, Node.js, Bootstrap, Tailwind CSS |
| **6.** | Scalable Architecture | 3-tier architecture with RESTful APIs Microservices |

**References:**

[**React.js Documentation**](https://react.dev/)

[**Node js Best Practice**](https://nodejs.org/en/learn/getting-started/introduction-to-nodejs)

[**JSON Web Server Referance**](https://www.npmjs.com/package/json-server)

[**https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d**](https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d)

[MongoDB Docs](https://www.mongodb.com/docs/)