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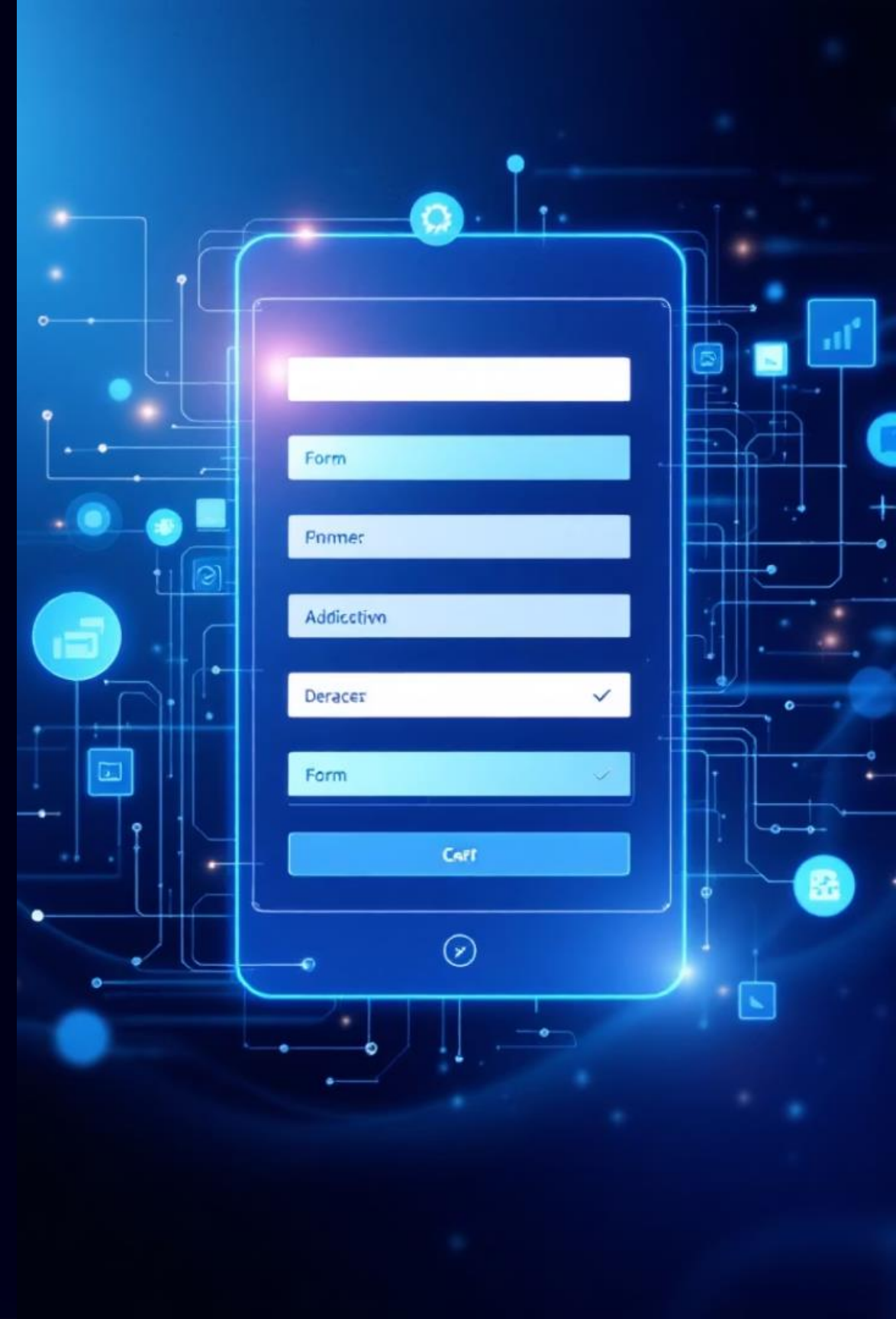


FILL 'N' THRILL

GENERATE YOUR IDEAS

Form Generator: Streamlining Data Collection

Introducing an automated form creation and submission platform. Built on Node.js, Express.js, and MongoDB. Designed to simplify and speed up data collection workflows.



User Registration and Login Flow

1 User Registration

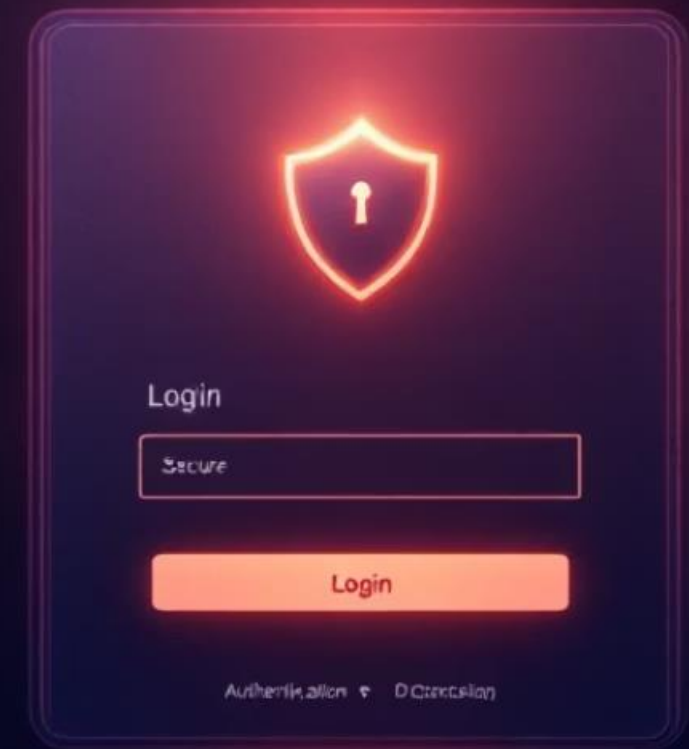
New users sign up securely with data validation.

2 Role-Based Redirects

Admins go to home, normal users to userforms.

3 Secure Authentication

Bcrypt hashing (10 rounds) and JWT tokens used.



User Dashboard: Form Selection

Dynamic Form Listing

Lists forms from database dynamically with updates.

Pagination & Sorting

Displays 10 forms per page, sorted by creation date.

User Navigation

Simple, intuitive interface for effortless form selection.

Form Creation and Submission

Dynamic Rendering

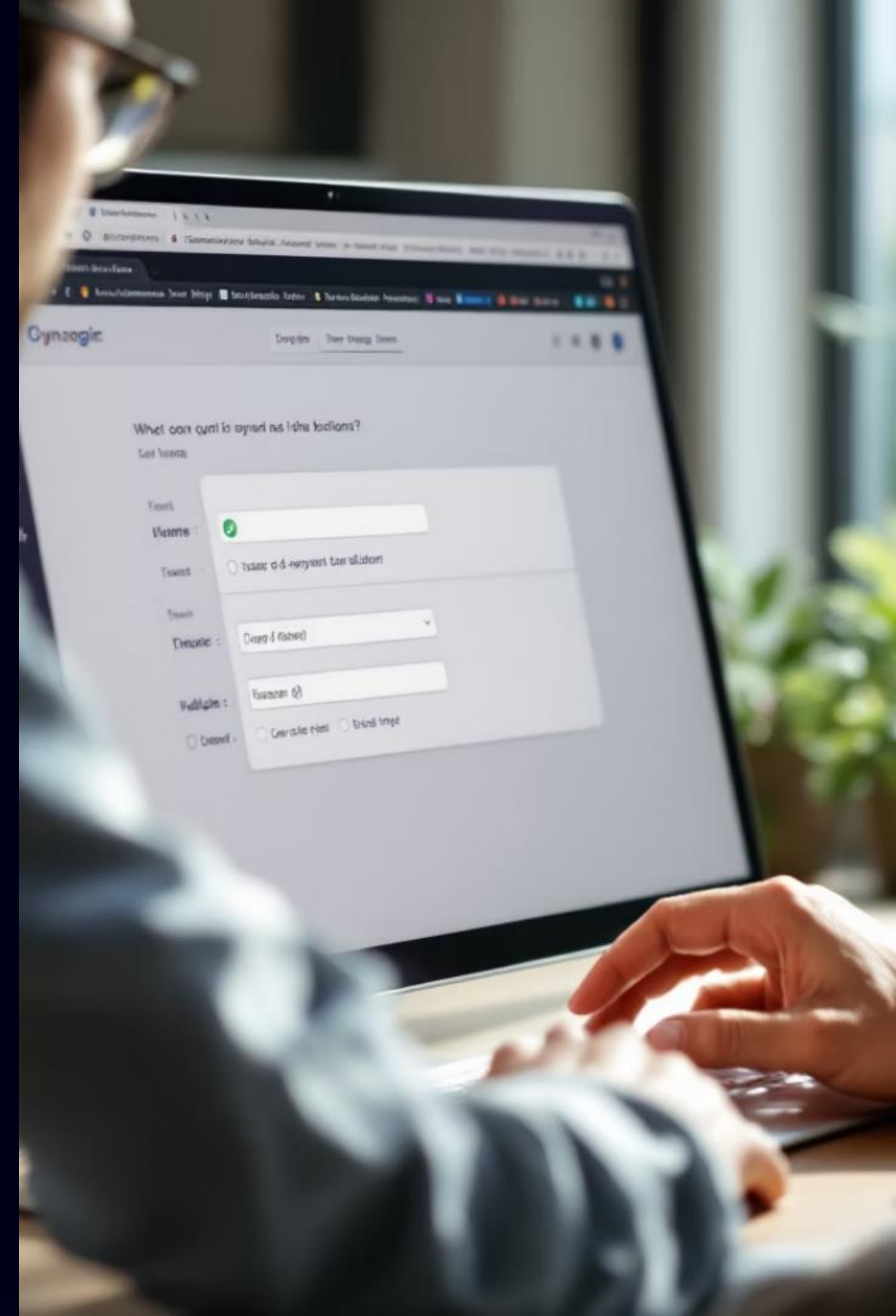
Forms and questions generated based on input.

Validation & Errors

Instant checks ensure accurate answers before submit.

Secure Data Submission

Data sent securely via HTTPS in JSON format.



Admin Dashboard: Form Management

Form Management

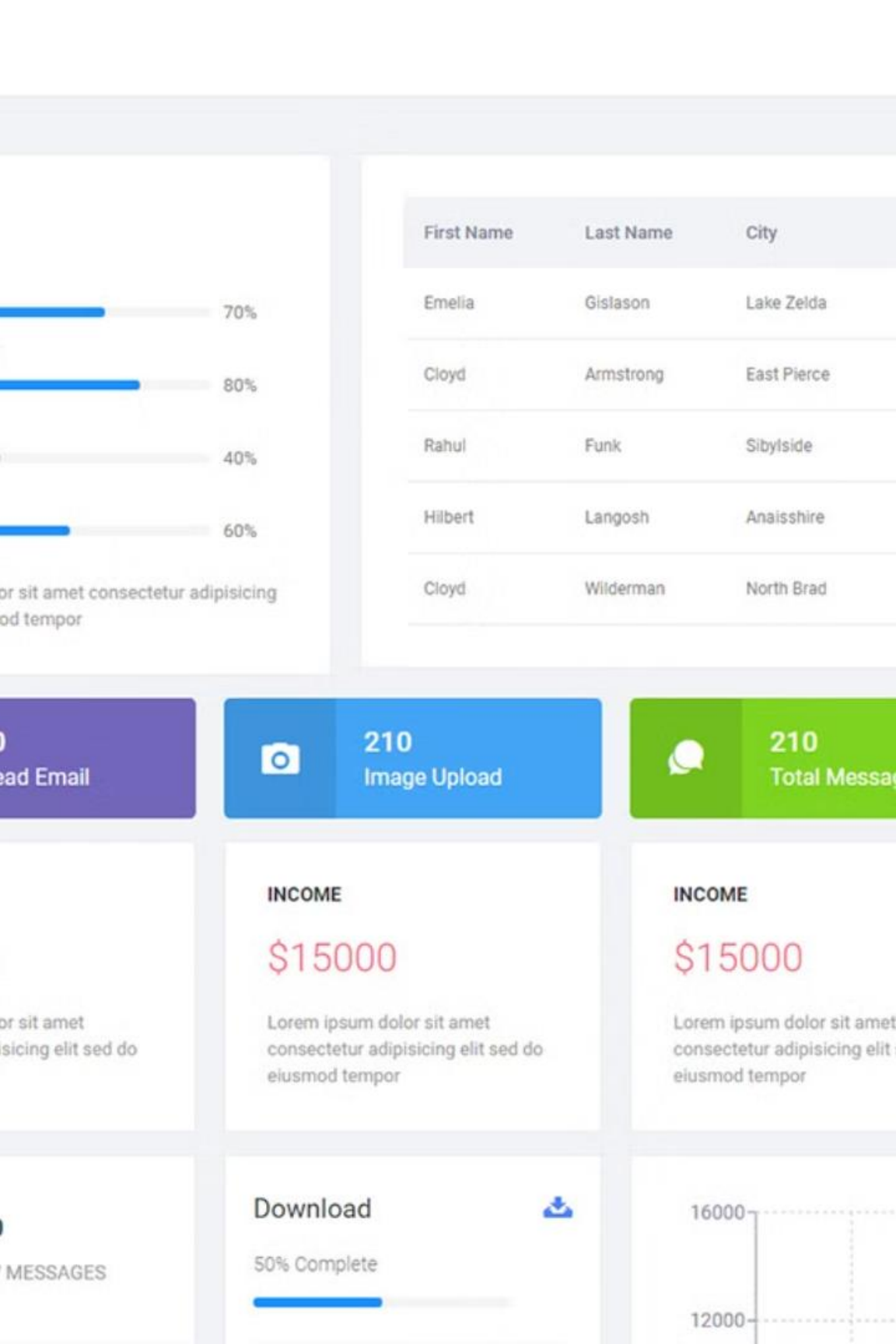
Create, edit, and delete forms with ease.

User Roles

Assign roles and manage user permissions effectively.

Analytics

View submissions count.




```
"users" : {  
  "user1" : {  
    "username" : "Alexander",  
    "role" : "Developer",  
    "location" : "San Francisco",  
    "date" : "04/12/17"  
  },  
  "user2" : {  
    "username" : "Christopher",  
    "role" : "Product Manager",  
    "location" : "New York",  
    "date" : "05/11/17"  
  },  
  "user3" : {  
    "username" : "Diane",  
    "role" : "Developer",  
    "location" : "New York",  
    "date" : "04/11/17"  
  },  
  "user4" : {  
    "username" : "Michael",  
    "role" : "Designer",  
    "location" : "Los Angeles",  
    "date" : "16/08/17"  
  },  
  "user5" : {  
    "username" : "Patrice",  
    "role" : "QA Tester",  
    "location" : "Seattle",  
    "date" : "02/10/17"  
  }  
}
```

Admin: Viewing User Submissions



Data Access

User submission data shown clearly in JSON.



Search & Filters

Efficiently find records by date, user ID, or keywords.



Export Capabilities

Download data as CSV or other useful formats.

Database Structure: MongoDB

Form JSON Schema

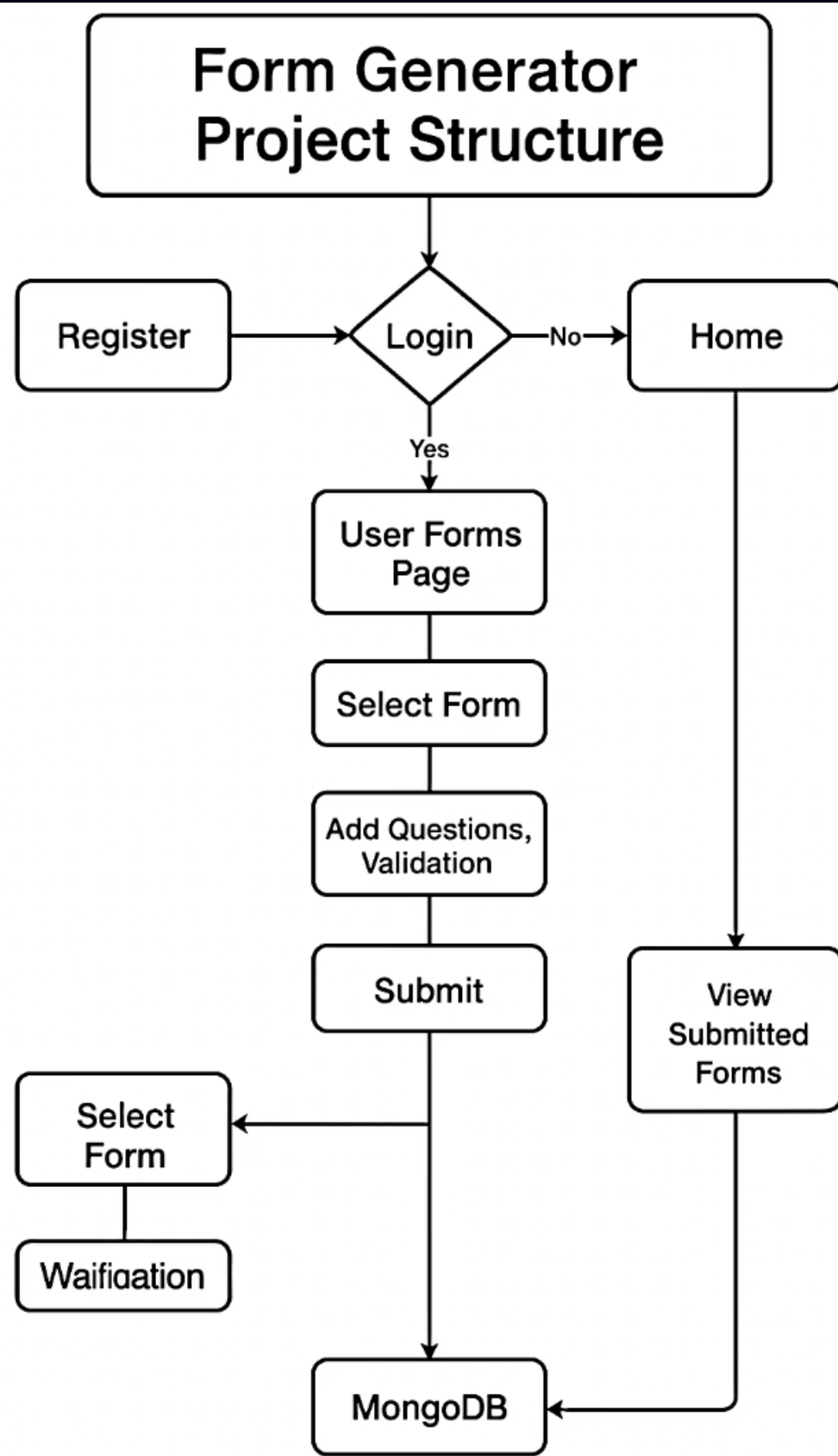
Defines form fields, types, validation in flexible JSON.

User Data Storage

Each submission stored as JSON linked to forms and users.

Scalability

MongoDB supports growing data volume and structure changes.



System Architecture

Node.js Server

Handles client requests and business logic efficiently, ensuring asynchronous event-driven processing for high performance and scalability. It acts as the core runtime environment that executes JavaScript on the server side to manage all backend operations.

Express.js Routing

Manages API endpoints and middleware layers cleanly to route HTTP requests to appropriate handlers. It facilitates modular and maintainable server code by supporting middleware functions for logging, authentication, and error handling.

MongoDB

A NoSQL document database that stores form structures and user submissions as flexible JSON documents. This design allows easy schema changes, horizontal scaling, and fast retrieval of user-generated data for analytics and reporting.



Project Benefits and Impact



Time Saving

40% faster form creation process.



Improved Accuracy

Eliminates manual errors in form data.



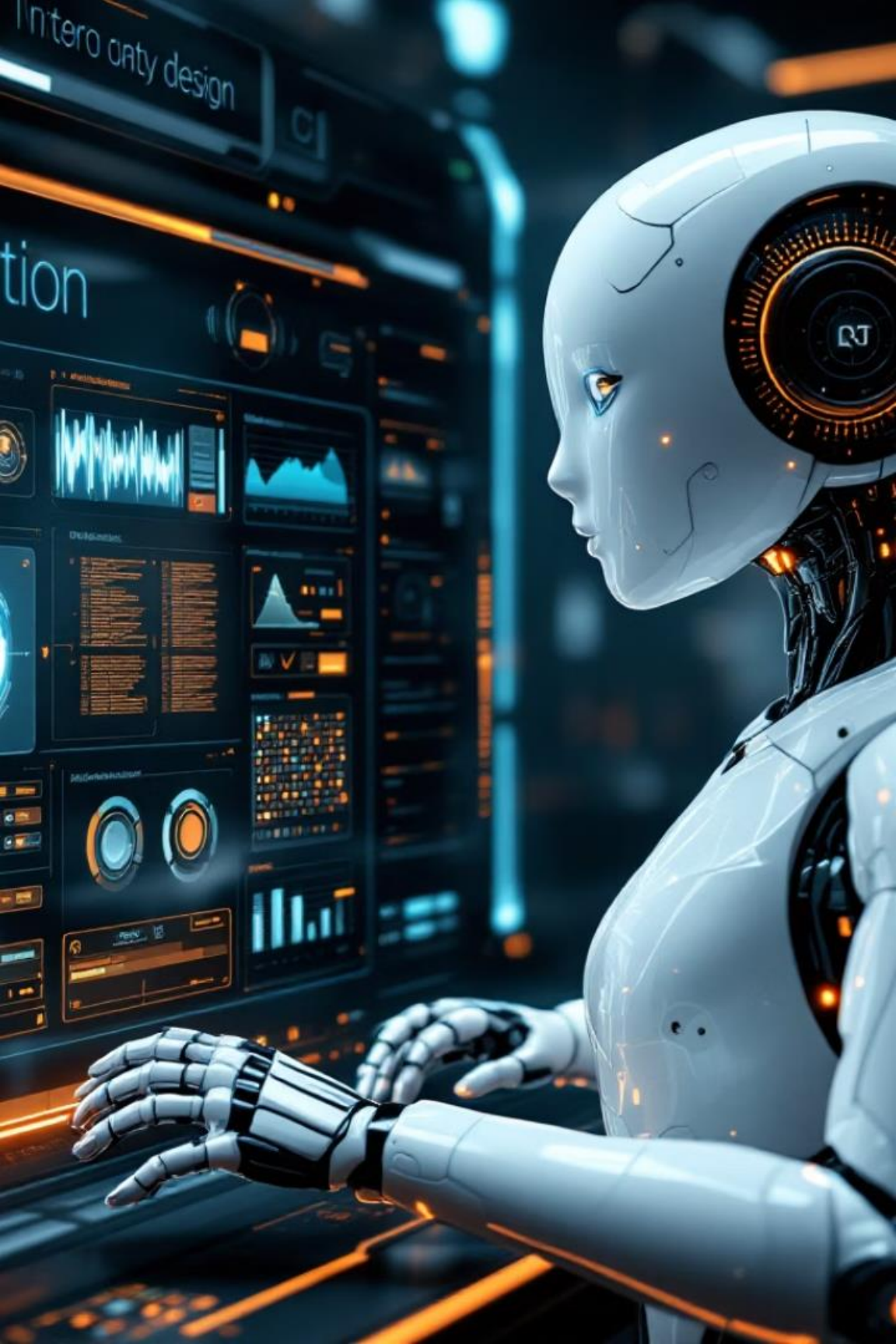
Efficiency

Automates repetitive tasks, reducing workload.



Better Accessibility

Centralized data stored securely in MongoDB.



Summary and Future Development

1

Project Achievements

Automated form workflows and secure data management.

2

Upcoming Features

Enhanced real-time collaboration with Angular integration.

Improved backend performance using Node.js optimizations.

Advanced data visualization powered by MongoDB aggregations.

Streamlined API development with Express.js middleware enhancements.

3

Q&A

Open discussion to address questions and ideas.