

1. Client-Side Application (React):

- Users interact with the application through a React-based frontend hosted on AWS S3.
- Static assets such as HTML, CSS, and JavaScript files are stored in S3 buckets and served to users via AWS CloudFront, a content delivery network (CDN). This setup ensures fast and reliable delivery of the application globally.

2. Load Balancer (AWS ALB):

- The Application Load Balancer (ALB) distributes incoming HTTP requests from clients to multiple instances of the Express server.
- ALB automatically scales to handle varying traffic loads and ensures high availability and fault tolerance by routing requests only to healthy instances.

3. Express Server (EC2 Instances):

- The backend logic of the application, including user registration, login, message handling, and authentication, is hosted on EC2 instances running Express servers.
- EC2 instances are scalable virtual servers in the AWS cloud, and they are launched from pre-configured Amazon Machine Images (AMIs) containing the application code and dependencies.

4. Database (Amazon RDS - PostgreSQL):

- User data, including usernames, hashed passwords, and token limits, is stored in Amazon RDS, a managed relational database service provided by AWS.
- RDS handles database administration tasks such as provisioning, backups, and patching, allowing to focus on application development without worrying about database management.

