

## Roulettech take-home assignment

**GitHub Link:** <https://github.com/MohapatraShibu/assignment>

### 3-tier AWS architecture:

Description –

- a. Frontend (Presentation Layer):
  - AWS S3: Hosts the React.js static files (HTML, CSS, JavaScript).
  - AWS CloudFront: Distributes the static content globally, improving load times and reducing latency.
- b. Backend (Application Layer):
  - AWS Elastic Beanstalk or EC2 with ALB: Hosts the Django application, with the Application Load Balancer distributing incoming traffic across multiple EC2 instances.
- c. Database (Data Layer):
  - Amazon RDS: Manages the relational database (e.g., PostgreSQL, MySQL) for storing application data.
  - Security Groups: Used to control access to the instances, allowing only necessary traffic.
- d. Optional:
  - AWS IAM: Manages access and permissions for the services.
  - AWS Route 53: Manages DNS routing for the domain.

Diagram –

