Guest / Maid / Supervisor or ETC.

Route 53

Frontend

Cloudfront

Frontend website S3

API gateway

monitoring

Cloundwatch

Health dashboard

applicataion loadbalancer

Backend

Auto Scaling group

Availability Zone

ec2 service instance

Availability Zone

ec2 service instance

database

Property management software architecture design

This design can be separate into 4 part

1. User interface
   a. Amazon Route 53:
      i. Amazon Route 53 is a scalable and highly available domain name system (DNS) web service provided by AWS.
      ii. It can be used to register and manage domain names, and route incoming requests to the appropriate resources.
   b. API Gateway
      i. API Gateway is highly scalable, allowing the system to handle a large volume of API requests. It automatically scales based on the incoming traffic, ensuring that your system can handle peak loads without compromising performance.

2. Frontend
   a. CloudFront
   b. S3 bucket

   CloudFront and S3 hosting and delivering frontend assets, you can enhance the performance,scalability, availability, and security of your system's UI.

3. Backend
   a. LoadBalancer
      - it helps distribute incoming network traffic across multiple servers or instances to ensure efficient resource utilization and high availability
   b. Auto scaling group
   c. EC2 instance
   d. Database
      i. This part might be wrong or might not work with high workload. It suppose to have something to manage the shared database between each instance. i never setup that path test before.So i don't appropriate way to implement this part

   For the backend, I design to scale it by EC2 instance amount. So services have to be wrapped and set up as Docker images(or maybe use Kubernetes).

4. Monitoring and logging
   a. Cloudwatch
   b. Healthy dashboard

For the dashboard system, we have to integrate with the live database(ex. Firebase) But i don't know service name in AWS)