~~Index~~
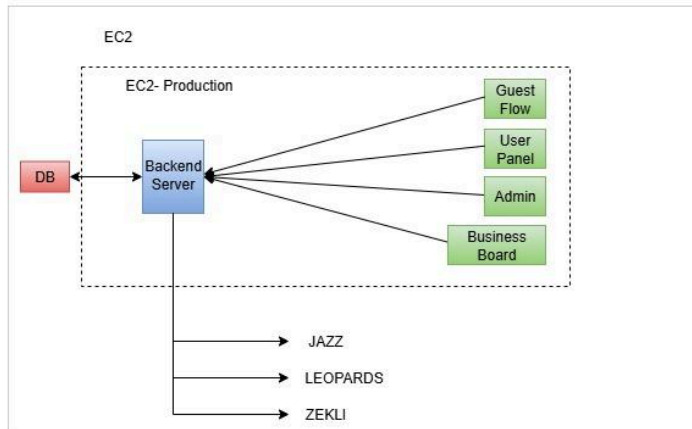
This is the standard flow that can be used for all 4 modules and backend development.
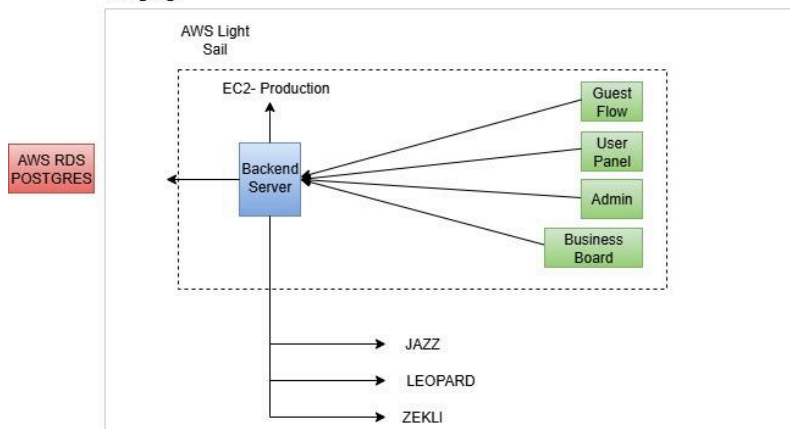
A..System Architecture

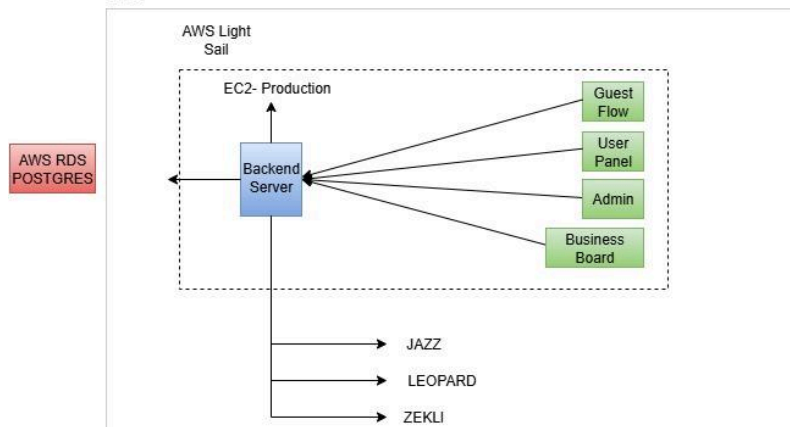Production

Staging

Dev

A.1. Tech Stack Summary

Frontend, Backend, Database, DevOps tools

A.2. Environments

Development, Staging, Production

A.3. Deployment Flow

CI/CD pipeline overview

A.4. Authentication & Authorization

How login, roles, and permissions work

A.5. Onboarding Guide for Developers

A.5(a) How to Set Up the Local Dev Environment

A.5(b) Environment Variables & Secrets (mention secure sharing method)

A.5(c)Code Structure & Conventions

A.5(d) Testing Procedures

A.5 (e) Useful CLI Commands / Scripts

A.   Core Modules & Features

B.1. Feature Name

B.1(a) Description

B.1(b) Business Logic

B.1(c) User Stories ✅

B.1(e) Frontend Components

B.1(f) Backend Services

B.1(g) Data Flow Diagram (if complex)

B.1. (h) Limits & Constraints

Max File Upload Size

API Rate Limits

Session/Token Lifetimes

DB Table Size or Record Limits

Retry / Timeout Policies

B.1(i) Related APIs

B.1(j) Known Limitations or Constraints ✅ (e.g., file size, data limits)

B.1(k) Future Roadmap

B.   APIs Documentation

C.1. API Group / Module Name

C.2. Endpoint: GET /api/products

C.3. Purpose

C.4. Request Parameters (query/body)

C.5. Authentication Required

C.6. Response Format + Examples

C.7. Error Codes & Messages

C.8. Linked Frontend

C.9. Component / Consumer Service

C. Database Schema

D.1. Entity Relationship Diagram (ERD)

D.2. Main Tables & Fields

D.3. Indexing and Performance Notes

D.4. Data Flow and Sync (if multi-database or distributed)

D. DevOps / Infrastructure

E.1. Hosting / Cloud Provider

E.2. CI/CD Pipelines

E.3. Secrets Management

E.4. Monitoring & Logging Tools

E.5. Backup & Recovery Plans

E.6. Scaling Strategy / Auto-scaling Setup

E.   Integrations

Each integration should include:

F.1. Third-party Tool / Service Name

F.2. Purpose of Integration

F.3. Authentication / API Keys Used

F.4. Webhook or Data Sync Flow

F.5. Error Handling

F.6. Integration Health Monitoring

F. Security & Compliance

G.1. Data Encryption (at rest & transit)

G.2. Access Control Rules

G.3. User Data Handling Policies

G.4. Penetration Testing Notes (if done)

G.5. GDPR / Local Regulations Consideration

G.   Conditional Rendering Rules

H.1. Admin Panel

H.1(a) Feature Name

H.1(a)(i) Conditional Rendering Rules

H.1(a)(ii) Mobile vs Desktop Behavior

H.1(a)(iii) Tooltips, Errors, and Microcopy Guidelines

H.1(a)(iv) Max File Upload Size

H.1(a)(v) API Rate Limits

H.1(a)(vi) Session/Token Lifetimes

H.1(a)(vii) HDB Table Size or Record Limits

H.1(a)(viii) Retry / Timeout Policies

H.1(a)(ix) Cross-Module Edge Cases