High-Level Design Document (C4 Ingestion Template)

# 1. Context Level

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | Name | Type | Description | | Internal User | Person | Employee accessing the system (e.g., HR Recruiter) | | External CRM System | System | External customer database | | Oracle HCM | System | Manages human capital, including employee data, recruiting, and performance. | | OpenAI | System | Provides AI models for natural language processing and data analysis. | |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# 2. Container Level

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | Container Name | Technology | | Web Portal | React + Node.js | | API Gateway | AWS API Gateway | | Identity Service | Azure AD B2C | | Integration Service | Spring Boot | | Analytics Engine | Python (Pandas, BigQuery SDK) | | Document Storage Service | AWS S3 + Lambda | | Compliance Auditing Module | Python + GAIA SDK | | Workflow Automation Service | ServiceNow Integration APIs | | Financial Data Connector | Oracle Fusion API SDK | | Hcm Data Connector | Oracle HCM API SDK | | Ai Analysis Service | Python, OpenAI API | | Data Warehouse | Google BigQuery | |  |
|  |  |
|  |  |

# 3. Component Level

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | Component Name | Technology | | Authentication Service | Spring Boot | | Payment Processor | Stripe API | | OrderController | Spring MVC | | OrderService | Spring Service | | OrderRepository | Spring Data JPA | | PaymentGateway | Library X | | HcmDataFetcher | Oracle Fusion API SDK | | AiProfileAnalyzer | Python, OpenAI API | | CandidateRanker | Spring Boot | | InterviewScheduler | Node.js | |  |
|  |  |
|  |  |

# 4. Relationships

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | From | To | Label | | Internal User | API Gateway | Accesses API | | API Gateway | Data Warehouse | Queries Data | | Authentication Service | Data Warehouse | Validates User | | Web Portal | API Gateway | Sends user requests via APIs | | API Gateway | Identity Service | Handles authentication for user requests | | API Gateway | Integration Service | Routes integration API calls | | API Gateway | Analytics Engine | Triggers data analytics queries | | Integration Service | Oracle Fusion Financials | Synchronizes financial transactions and data | | Integration Service | ServiceNow | Triggers employee workflows | | Integration Service | Google BigQuery | Loads operational data for reporting | | Document Storage Service | AWS S3 Storage | Stores and retrieves documents, backups, and logs | | Compliance Auditing Module | GAIA Data Federation | Pushes secure compliance and audit data | | Integration Service | Hcm Data Connector | Orchestrates HCM data flow | | Hcm Data Connector | Oracle HCM | Fetches employee/candidate data | | Integration Service | Ai Analysis Service | Sends data for AI analysis | | Ai Analysis Service | OpenAI | Uses OpenAI models | | OrderController | OrderService | Uses | | OrderService | OrderRepository | Uses | | OrderController | PaymentGateway | Uses | |  |  |
|  |  |  |
|  |  |  |
|  |  |  |