

**\*\*Human Resource Information System (HRIS)\*\***

**\*\*Cloud-Native | Microservices | API-First | AI-Powered\*\***

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## # Vision Statement

To build a scalable, future-ready, intelligent Human Resource Information System (HRIS) using SharePoint, Microsoft Power Platform, and .NET. The platform will follow cloud-native, microservices, and API-first principles with built-in AI/GenAI capabilities to empower organizations for the next 35 years.

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## # Business Architecture

### ## Core HRIS Modules

- **\*\*Employee Management\*\***
- **\*\*Leave & Attendance Tracking\*\***
- **\*\*Recruitment & Onboarding\*\***
- **\*\*Payroll & Compensation\*\***
- **\*\*Performance & Appraisal Management\*\***
- **\*\*Training & Learning Management (LMS)\*\***
- **\*\*Offboarding & Exit Formalities\*\***
- **\*\*Employee & Manager Self-Service Portals\*\***
- **\*\*Compliance, Document Management, and Auditing\*\***
- **\*\*Organizational Directory and Charts\*\***

## ## Key Stakeholders

- HR Managers and Staff
- Employees
- Department Managers
- Executives & Leadership
- IT/Admin Users
- External Agencies (via secure APIs)

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## # Technical Architecture

### ## Architectural Principles

- **Cloud-native (Azure)**
- **Microservices-based** (Each module is an independent service)
- **API-first** (All logic exposed through REST APIs)
- **Event-driven** (Azure Event Grid or Service Bus)
- **Composable Architecture** (Modular and pluggable)

### ## Integration & Data Flow

- **Frontend**: Power Apps (Model-driven + Canvas) and custom React SPA
- **Backend**: .NET 8+ Microservices with Azure Functions
- **Data Layer**: Azure SQL, Cosmos DB, SharePoint Lists/Documents
- **APIs**: Azure API Management, OpenAPI/Swagger, GraphQL (optional)
- **Workflows**: Power Automate, Azure Logic Apps
- **Authentication**: Azure Active Directory (OAuth2, MSAL)
- **Monitoring**: Azure Monitor, App Insights

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# Technical Stack Overview

Layer	Tools/Technologies	
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**Frontend**	Power Apps, React, TailwindCSS	
**Backend**	.NET 8, C#, Azure Functions, Azure App Services	
**API Management**	Azure API Management, Swagger/OpenAPI, GraphQL	
**Database**	Azure SQL, Cosmos DB, SharePoint Online	
**Eventing**	Azure Service Bus, Azure Event Grid	
**Authentication**	Azure AD, MSAL, OAuth2	
**CI/CD**	GitHub Actions, Azure DevOps Pipelines	
**Monitoring**	Azure Monitor, Application Insights, Log Analytics	
**Infrastructure**	ARM/Bicep, Terraform, Azure Kubernetes Service (AKS)	
**AI/GenAI**	Azure OpenAI, Power Automate AI Builder, Semantic Kernel	

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# GenAI & AI-Powered Modules

Area	Use Case	
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**Recruitment**	Resume parsing, JD generation, Candidate scoring	
**Chatbot (HR Assistant)**	Built with Azure OpenAI + Power Virtual Agents	
**Performance Reviews**	Feedback generation, summary insights	

<b>**LMS**</b>	Personalized learning path suggestion	
<b>**Knowledge Base**</b>	Q&A assistant using Azure Cognitive Search + OpenAI	
<b>**Document Automation**</b>	Offer letters, onboarding kits using AI	
<b>**Leave &amp; Attendance**</b>	AI assistant for leave balance and booking queries	
<b>**Analytics**</b>	Employee sentiment analysis, attrition prediction	

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## # Future Readiness (35 Years)

### ## Strategic Directions

- **\*\*Composable Architecture\*\*** for pluggability and scale
- **\*\*API Ecosystem\*\***: Extendability to 3rd-party tools (e.g., ERP, Payroll)
- **\*\*AI-First UX\*\***: Predictive analytics, conversational interfaces
- **\*\*Self-service Everything\*\***: Mobile-first employee and manager experiences
- **\*\*Compliance & Security\*\***: RBAC, encryption, GDPR/SOC 2 readiness

### ## Emerging Tech Readiness

- GenAI copilots & assistants
- GraphQL for flexible frontend queries
- Azure Synapse for data warehousing
- AI-driven insights via Power BI Embedded

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## # Phased Implementation Roadmap

Phase	Modules Covered	AI/Automation Included
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**Phase 1**	Employee Master, Leave & Attendance	Chatbot, Doc Upload, Smart Leave Assistant
**Phase 2**	Recruitment, Onboarding, Payroll	Resume AI, Doc Automation
**Phase 3**	Performance, LMS, Exit	AI-generated Feedback, Learning AI
**Phase 4**	Dashboards, API Marketplace, Analytics	Sentiment AI, Embedded Insights

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# Documentation & Governance

- Use **Swagger/OpenAPI** for all API specs
- Maintain **API Gateway** with role-based access
- Define versioning policies
- DevSecOps practices integrated in CI/CD
- Regular code audits, logs, and test automation

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# Security & Compliance

- **Azure AD** + RBAC
- **Data Encryption** at Rest & Transit
- **Compliance**: GDPR, SOC2, HIPAA Ready
- **Audit Trails** for all critical actions

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## # KPIs to Measure Success

- Onboarding Time Reduction
- HR Ticket/Query Automation %
- AI Suggestion Accuracy
- Employee NPS/Sentiment
- System Uptime & Latency

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## # Summary

This HRIS platform is designed to be an intelligent, modular, scalable system built using modern Microsoft technologies and GenAI. It empowers organizations to transform HR operations digitally, automate workflows, and deliver intelligent insights over the next 35 years.