Business Requirements Document (BRD) - Attrition & Retention Prediction Model

## 1. Executive Summary

Employee attrition affects performance, continuity, and cost. This project aims to build a predictive model to help HR identify employees at risk of leaving and understand the reasons behind it. By analyzing employee data, the model will provide early warnings and support proactive retention strategies.

## 2. Scope

### In-Scope

* Develop a machine learning model to predict attrition risk.
* Analyze employee data to identify key attrition drivers.
* Create a dashboard for HR to view risk scores and insights.
* Set up alerts for high-risk employees.
* Integrate with HR systems for real-time updates.

### Out-of-Scope

* Manual review of exit interviews.
* Execution of retention strategies.
* Real-time sentiment monitoring.
* Legal or compliance analysis of exits.

## 3. Stakeholders

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| --- | --- | --- |
| **Role** | **Department** | **Responsibility** |
| Project Sponsor | HR Leadership | Provides strategic direction and funding |
| Product Owner | HR Analytics | Defines requirements and priorities |
| Project Manager | PMO/HR | Manages timelines and coordination |
| Data Scientist | Analytics | Builds and validates the model |
| HR Business Partners | HR | Provides domain expertise and feedback |
| IT Support | IT | Supports integration and data security |
| End Users | Talent Acquisition, HR Ops | Uses the model and dashboard |

## 4. Functional and Non-Functional Requirements

### Functional Requirements

* Collect and prepare employee data.
* Build and train a predictive model.
* Generate risk scores and insights.
* Develop a dashboard with filters.
* Set up alerts for HR.
* Integrate with HR platforms.

### Non-Functional Requirements

* Provide UAT access and secure credentials.
* Achieve at least 85% model accuracy.
* Ensure dashboard responsiveness.
* Comply with data privacy regulations.
* Ensure system availability and scalability.
* Provide documentation for maintenance.

## 5. Assumptions and Constraints

### Assumptions

* Historical data is available and accessible.
* HR systems can be integrated.
* Stakeholders will provide timely feedback.
* Required system access will be granted.

### Constraints

* Limited access to sensitive data.
* Budget limitations for tools.
* Data quality may affect accuracy.
* Retention actions will remain manual.

## 6. Success Criteria

### Measurement

* Accurate identification of at-risk employees.
* HR uses insights for timely actions.

### Metrics and Deliverables

* Minimum 85% model accuracy.
* 10% reduction in voluntary attrition in 12 months.
* Positive HR feedback on the dashboard.
* Insights for at least 80% of high-risk cases.

## 7. Risks and Mitigation

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| **Risk** | **Impact** | **Mitigation Strategy** |
| Incomplete or poor-quality data | High | Conduct data audit and cleansing |
| Model bias or unfair predictions | Medium | Test for bias and ensure fairness |
| Low adoption by HR teams | Medium | Provide training and early engagement |
| Integration delays with HR systems | Medium | Coordinate early with IT |
| Privacy or compliance concerns | High | Follow data policies and regulations |