**HR Resources Analysis Report**

**Introduction**

* **Project Overview**:
  + A comprehensive analysis of employee data, focusing on performance and distribution across departments within the organization.
* **Stakeholders**:
  + **Depi for Ahmed Alaa**
* **Scope**:
  + Evaluation of employee performance across departments, focusing on metrics such as hiring trends, gender distribution, organizational levels, and time-off patterns.

**Data Requirements**

* **Data Sources**:
  + SQL Database: AdventureStore
* **Data Volume**:
  + **Total Employees**: 297 rows

**Data Preparation**

* **Data Cleaning**:
  + Data verified for validity.
  + No duplicate entries identified.
* **Data Transformation**:
  + Extracted data from SQL to Excel for analysis and visualization.

**Analysis and Design**

* **Business Questions**:
  1. What is the total number of employees in each department?
  2. What is the hiring rate trend over time?
  3. What is the gender distribution percentage among employees?
  4. What is the total number of employees at each organizational level?
  5. What are the vacation hours and sick leave hours in each department?
* **KPIs and Metrics**:
  1. **Vacation Hours**: Average vacation hours taken by employees.
  2. **Sick Leave Hours**: Average sick leave hours taken by employees.
* **Visualization Plan**:
  1. Create individual charts for each business question.
  2. Compile charts into a unified dashboard for a holistic view of employee performance, with slicers for time and department filters.

**Implementation**

* **Visualizations**:
  + A dashboard with the following:
    1. Chart displaying the total employees in each department.
    2. Chart illustrating the hiring rate trend over time.
    3. Pie chart or bar chart showing gender distribution.
    4. Chart depicting the total number of employees by organizational level.
    5. Chart analyzing vacation hours and sick leave hours across departments.
  + Two slicers for interactivity:
    1. **Time**: Allows filtering by year or period.
    2. **Department**: Enables filtering by department to analyze specific trends.

**Insights**

1. **Gender Distribution**:
   * Approximately **two-thirds** of employees are male.
2. **Departmental Focus**:
   * The **Production Department** has the highest number of employees.
3. **Organizational Levels**:
   * The **4th organizational level** has the majority of employees, totaling **190** individuals.
4. **Hiring Trends**:
   * The highest hiring rate occurred in **2009**, after which it steadily declined.
   * Current hiring rates are at their lowest, indicating the need to recruit new employees to address potential workforce gaps.
5. **Time-Off Patterns**:
   * A positive correlation exists between **average vacation hours** and **average sick leave hours**.
   * Departments with higher time-off usage include:
     + **Shipping Facilities**
     + **Quality and Documentation**
     + **IT**