Project Title:

Human-Resources-Data-Analysis-Project

Team Leader: Arwa Kassim(arwamac2016@gmail.com)

Description:

This project is developed as part of the **Digital Egypt Pioneers Initiative (DEPI)** – *Data Analysis Track*.
It aims to analyze HR data to gain insights into employee demographics, salary distribution, attrition trends, and workforce patterns.

Using **Python**, **Excel**, and **Power BI**, the project explores key performance indicators (KPIs) such as employee attrition rate, average salary, overtime trends, and department-level statistics.
The analysis supports data-driven decision making for HR teams by identifying key factors influencing employee turnover and workplace satisfaction.

The analysis helps the HR department identify factors that may influence employee turnover and provides data-driven recommendations to improve retention and workplace diversity.

Team Members and Roles:

- **Rwan Adel:** Participate in performing data cleaning and preprocessing using Python (Pandas) and Excel.

- **Mohamed Abdelbary:** Participate in performing data cleaning and preprocessing using Python (Pandas) and Excel.

- **Ali Mamdouh:** Designing, developing interactive Power BI dashboards and presenting key insights.

- **Gehad Adel:** Create the power point presentation and participate in designing, developing interactive Power BI dashboards and presenting key insights.

- **Arwa Kassim:** Reporting & Documentation (Data Wrangling Report, Business Insights Report, ReadMe report).

Objectives:

- To clean, prepare, and structure HR data for analysis using Python and Excel.

- To analyze employee demographics, salary distribution, and attrition patterns.

- To develop interactive dashboards in Power BI that visualize key workforce indicators.

- To generate insights that support HR departments in improving retention and understanding workforce behavior.

- To present findings in a clear, data-driven report that aids organizational decision-making.

Deadlines:

- ✓ **Data Cleaning and Assessment:** Through one month after receiving the Data source.
- ✓ **Data Modeling and Visualization:** Through one month after Data Cleaning.
- ✓ **Reports:** Data Wrangling Report 2 weeks after Data Cleaning, Business Insights Report 2 weeks after Data Modeling and Visualization, ReadMe report one week after all reports.
- ✓ **Power point and presentation:** 2 weeks.

Tools & Technologies:

- **Python**.

- **Excel**.

- **Power BI**.