Summary Report: Skills in JustJoinIT Job Market Analysis

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Projects: https://drive.google.com/drive/folders/1L9aZgZ7Oqijp3GywZM0_IVDtUmUON0E_?usp=drive_link

The project focused on analyzing job market data to identify in-demand skills, employment trends, and other key factors. Using **PySpark**, the data from multiple JSON files was combined into a unified dataset, enabling efficient processing of the large volume of information.

Data Preprocessing

Data preprocessing has been done in the **Kaggle** environment and the jupyter notebook is uploaded in Google Drive**.** The preprocessing phase involved cleaning and standardizing key columns such as:

- **Skills**: Parsed and consolidated column skills into separate columns (skill_1, skill_2, skill_3 and their level) for trend analysis.
- **Employment Type**: Categorized various employment types (permanent, b2b, contract mandate) and their salary range.
- **Multi-Location**: Addressed data inconsistencies in job listings with multiple locations.

Missing values in the dataset were handled using logical placeholders (e.g., "Unknown") to preserve all records for analysis without dropping important information.

Dashboard Creation

The processed data was used to create an interactive dashboard in **Power BI**, presenting KPI s which are useful for Education centers to consider new changes. The dashboard includes:

1. **Line Chart**: Represents the trend of published jobs over time by top companies such as Nokia, 7N, XTB etc.
2. **Map:** Displays jobs by their location (Poland, UK, France etc).
3. **Bar plot:** Visualize company names by their annual salary.
4. **Heatmap**: Highlights the most in-demand jobs with its occurrence in the market.
5. **Additional Visualizations**: Display information on salary ranges, experience levels, and workplace types (e.g., remote, office, hybrid).

Conclusion

Foundation-Level Courses:
- **SQL**: and querying techniques is essential As the most in-demand skill across all levels (junior, middle, and senior), a course on SQL focusing on database management.
- **Python**: A versatile and widely-used programming language for data analysis, automation, and Big Data applications.
- **Microsoft Office (Excel)**: Essential for entry-level analysts to work with basic data analysis and reporting.

Advanced-Level Courses:
- **Business Analysis with a Data-Driven Approach**: To help analysts derive actionable insights for decision-making.
- **Power BI and Tableau**: efficient data visualization and storytelling.

High-Value Niche Courses:

- **Cybersecurity in Big Data**: Addresses data protection, a growing concern as Big Data usage increases.
- **Enterprise Architecture**: To ensure IT alignment with business strategies.
- **Agile Project Management**: Supports iterative progress and flexibility in analytics projects.

Specialized Communication Courses:
- **Professional English for Data Analysts**: Enhances communication with clients and global stakeholders.

Future-Oriented Skills:

Business Process Modeling Notation (BPMN): For planning and visualizing business processes.

JIRA Training: For project management and requirement analysis in Big Data contexts.

Justification:
- **Market Trends**: The data highlights SQL, Python, and Power BI/Tableau as consistently high-demand skills. Cybersecurity and Agile management also command higher salaries.
- **Target Audience**: With a medium-sized analytics team and a focus on the Polish market, these courses will address foundational and advanced needs while offering niche skills to differentiate professionals.
- **Ease of Implementation**: The courses align with the expertise of the client's small analytics team and can be expanded using consulting support.

Value of Partnership:
By collaborating with us:
- **Enhanced Course Design**: We bring expertise in market trends, ensuring that courses are aligned with industry demand.
- **Support in Analytics**: Our experience in creating PoC dashboards can assist in fine-tuning course performance metrics.
- **Scalability**: Our team can provide additional support to scale these initiatives as the company grows.