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HACKATHON

UNLEASHING THE POTENTIAL OF YOUTH EMPLOYMENT DATA IN KENYA’S IT SECTOR"

Name: Lubanga
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Aspirations:

1.Get more exposure.
2.Put my skills into practice
3.Get to find places to improve

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METHODOLOGY

Process and Techniques:

- Conducted exploratory data analysis (EDA) to gain insights into the datasets.
- Employed data visualization techniques to represent trends and patterns effectively.

Programming Language:

- Python: utilized the Python programming language for all the code examples and data analysis tasks.

Techniques and Visualizations:

- Line Plot (Time Series Plot): We visualized trends over time by connecting data points with straight lines.
- Heatmap: We used a heatmap to show the Pearson correlation coefficients between numeric columns in a color-coded matrix.

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Data selection and processing

Variables:
total_inactive_population,ILO_unemployed_ratetotal_unemployed_population,total_employed_population,age_group,population
Data Reading and Overview:
Checked the basic information of the DataFrames using head(), info(), and describe() to get a sense of the data.

1. Handling Null Values: identified null values in the education DataFrame using isnull().sum() and checked the percentage of null values in each column.
2. Outlier Detection: You used box plots to visualize potential outliers in selected columns related to population and employment.
3. Visualization: Used various visualization techniques such as line plots, heatmaps, violin plots, and histograms to explore and present different aspects of the data.
4. Statistical Analysis: Computed mean and median values for relevant columns to understand central tendencies in the data.
5. Correlation Analysis: Calculated Pearson correlation coefficients between columns in the population DataFrame to analyze relationships and dependencies.

1. **Findings/Insights**
2. **Through line plots and area plots, you observed the trends in employment, unemployment, and inactivity over the years. This helped you identify periods of fluctuations and potential patterns in the job market.**
3. **Demographic Analysis: Violin plots provided insights into the distribution of unemployment across different education levels. This could help identify education-related disparities in employment opportunities.**
4. **Education and Employment Correlation: a strong positive correlation between higher education levels and employment rates, this could indicate that investing in education is essential for improving job prospects. Policymakers and educators can focus on initiatives that enhance educational opportunities and skills development.**