**Documentation: Tackling Unemployment in Nigeria Using a Job Database**

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**1. Introduction**

This documentation provides a detailed overview of the project aimed at addressing the unemployment crisis in Nigeria by developing and analyzing a job database. The project aligns with Sustainable Development Goal (SDG) 8, "Decent Work and Economic Growth," with a specific focus on reducing unemployment rates among youth and recent graduates.

**2. Problem Definition**

Nigeria faces a significant unemployment crisis, especially among young people. The high rate of unemployment contributes to economic instability, increased poverty, and social unrest. This project aims to tackle this issue by creating a job database that monitors employment rates, job offers, and job applications, and by analyzing this data to provide actionable insights.

**3. Objectives**

The primary objectives of this project are:

* To design a comprehensive job database that tracks job seekers, job offers, and applications.
* To analyze employment trends using Excel to create visualizations that highlight key issues and opportunities.
* To provide recommendations for reducing unemployment based on data-driven insights.

**4. Scope of Work**

The project involves designing a database, collecting and analyzing data, and presenting the findings. The scope includes:

* Designing the database structure using an Entity-Relationship Diagram (ERD).
* Implementing the database in MySQL.
* Collecting primary data through questionnaires.
* Analyzing the data in Excel and generating reports.
* Creating a presentation to communicate the findings.

**5. Methodology**

**5.1 Data Collection**

Primary data was collected through questionnaires distributed to job seekers and employers. The data gathered included personal details, employment status, education levels, job offers, and application statuses. The data was then entered into the job database for further analysis.

**5.2 Database Design**

The database was designed using an Entity-Relationship Diagram (ERD) to model the relationships between different entities. The entities identified were JobSeekers, JobOffers, and Applications.

**5.3 Data Analysis**

Data from the job database was exported to Excel for analysis. Various Excel tools, including PivotTables and charts, were used to generate insights on employment trends.

**6. Database Design**

**6.1 Entity-Relationship Diagram (ERD)**

The ERD was created to map out the relationships between the entities:

* **JobSeekers**: Represents individuals seeking employment.
* **JobOffers**: Represents job opportunities available.
* **Applications**: Represents the job applications submitted by job seekers.

**6.2 Tables and Attributes**

Three tables were created to store the data:

**Table: JobSeekers**

* **SeekerID** (Primary Key, Auto Increment)
* **Name** (VARCHAR(100))
* **Age** (INT)
* **Education** (VARCHAR(50))
* **EmploymentStatus** (VARCHAR(50))

**Table: JobOffers**

* **JobID** (Primary Key, Auto Increment)
* **Title** (VARCHAR(100))
* **Company** (VARCHAR(100))
* **Location** (VARCHAR(100))
* **SkillsRequired** (TEXT)

**Table: Applications**

* **ApplicationID** (Primary Key, Auto Increment)
* **SeekerID** (Foreign Key referencing JobSeekers)
* **JobID** (Foreign Key referencing JobOffers)
* **DateApplied** (DATE)
* **Status** (VARCHAR(50))

**6.3 SQL Queries**

The following SQL queries were used to create the tables:

sql

Copy code

CREATE TABLE JobSeekers (

SeekerID INT PRIMARY KEY AUTO\_INCREMENT,

Name VARCHAR(100),

Age INT,

Education VARCHAR(50),

EmploymentStatus VARCHAR(50)

);

CREATE TABLE JobOffers (

JobID INT PRIMARY KEY AUTO\_INCREMENT,

Title VARCHAR(100),

Company VARCHAR(100),

Location VARCHAR(100),

SkillsRequired TEXT

);

CREATE TABLE Applications (

ApplicationID INT PRIMARY KEY AUTO\_INCREMENT,

SeekerID INT,

JobID INT,

DateApplied DATE,

Status VARCHAR(50),

FOREIGN KEY (SeekerID) REFERENCES JobSeekers(SeekerID),

FOREIGN KEY (JobID) REFERENCES JobOffers(JobID)

);

**7. Data Collection**

Data collection was carried out using questionnaires distributed to a sample of job seekers and employers. The questionnaires captured essential details such as demographic information, education levels, employment status, job offers, and application details. This data was then input into the job database for subsequent analysis.

**8. Data Analysis Using Excel**

Data from the job database was exported into Excel for analysis. The analysis focused on several key areas:

**Export Each Table as a CSV File**

1. **Open MySQL Workbench and Connect to the Database**:
   * Launch MySQL Workbench and connect to your database (e.g., jobdatabase).
2. **Locate Your Tables**:
   * In the Navigator panel, find and expand your database to view the tables.
3. **Right-Click on Each Table**:
   * Right-click on the first table you want to export.
   * Select "Table Data Export Wizard" from the context menu.
4. **Configure Export Settings**:
   * In the wizard, select CSV as the export format.
   * Choose the location and filename for the CSV file. It's recommended to include the table name in the filename for clarity (e.g., applications.csv).
5. **Start Export**:
   * Click "Next" or "Finish" to start the export process.
6. **Repeat for Each Table**:
   * Repeat steps 3 to 5 for the other tables you wish to export, saving each table as a separate CSV file.

**Further Analysis on Excel**

* **Application Status**: The data was categorized into different application statuses (Applied, Scheduled for Interview, Rejected).
* **Employment Status**: Analysis of the employment status of job seekers (Employed, Unemployed).
* **Education vs. Employment**: Comparison of education levels against employment rates.

PivotTables and charts were used to create visual representations of the data, which provided insights into the employment trends and challenges.

**9. Findings**

The analysis revealed several key insights:

* **Application Status**: Out of 40 applications, 18 were applied, 12 were scheduled for interviews, and 10 were rejected.
* **Employment Status**: Among the job seekers, 25 were unemployed, and 15 were employed.
* **Education vs. Employment**: Bachelor degree holders had the highest employment rates, followed by Master’s degree holders, with PhD holders having the lowest.

These findings suggest that employment opportunities are more accessible to those with higher education levels, and there is a significant gap in employment opportunities for PhD holders.

**10. Challenges and Limitations**

* **Data Collection**: The reliance on primary data from questionnaires posed challenges in terms of data accuracy and completeness.
* **Database Design**: Ensuring data integrity and managing relationships between entities required careful design and testing.
* **Analysis**: The analysis was limited to the data collected, which may not fully represent the broader population.

**11. Conclusion**

The project successfully demonstrated how a data-driven approach can be used to address the unemployment crisis in Nigeria. By designing a job database and analyzing the data, we were able to identify key trends and areas for improvement. The findings provide valuable insights that can be used to develop targeted interventions to reduce unemployment and promote economic growth.

**12. Appendix**

**SQL Scripts**: Provided in the CANVA LINK.

**Excel Analysis**: The Excel workbook containing the data analysis and charts is uploaded on the GitHub.

**Presentation Slides**: A link to the presentation used for the pitch is below.

<https://www.canva.com/design/DAGPnMbA1bA/VPHhZDalxXLXdrn9Dainew/edit?utm_content=DAGPnMbA1bA&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton>

**Appendix**

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