**Database Work Description:**

The database creation, design, implementation and optimization for the job recruitment platform for the targeted job portal meant considerable careful planning and designing to meet the objectives of the platform effectively and efficiently as possible.

First, we planned the database and the tables we wanted the database to contain, how to interconnect the tables, and attributes with the respective data types.

One of the critical areas of concern was the account management and ensuring the user accounts had maintained a high level of security. To store the main details that are related to each user, we created the user table which included details like the username, the email and password hashes as well as the users’ profiles. Also integrated was the feature for user authentication and authorization to allow for privacy and protect users’ information.

To ensurethat employers could post their available jobs and manage these postings in a well-organized manner, the database has a table to this effect. This table was where it contained more specifics on every job opening, the title, the description, the necessities and procedures on how to apply. What has been implemented for the employers is the possibility to add, edit and remove job postings through the interface of the program and the changes made would be directly inputted in the database.

For candidate applications, it would be useful to preserve all the applications collected therefore we created the Candidate application table where each application includes a link to the job advertisement and the candidate profile. This was helpful in a way that employers could analyze and handle applications from the candidates viably.

Ensuring that data optimized became critical when data volume in the platform escalated. Its usual to index the frequently retrieved top columns while adding more columns besides making SQL statements efficient and enhancing caching to ensure that the results are delivered swiftly.

Also, we implemented back-up operations schedules and proper procedures on computerized library database back-up to avoid data loss and for better data security.