

EXECUTION PROCEDURE:

Here's an outline of the execution process:

1. Project Planning and Requirements Gathering:

- Define the scope and objectives of the project.
- Identify the specific features and functionalities required for career guidance.
- Gather requirements from potential users and stakeholders.

2. Design the Database Schema:

- Design the database schema using Oracle Database.
- Define tables, relationships, and data structures to store user profiles, career data, resources, and other relevant information.

3. Set Up the Backend with Node.js:

- Install Node.js and npm (Node Package Manager) if not already installed.
- Create a new Node.js project.
- Set up the server using a framework like Express.js.
- Implement routes for handling user registration, login, profile management, and career guidance features.

4. Implement User Authentication:

- Implement user authentication and authorization using JWT (JSON Web Tokens) or other secure methods.

- Ensure that user data is securely stored and transmitted.

5. Create APIs for Career Guidance:

- Develop APIs to manage career resources, such as articles, videos, courses, and job listings.
- Implement features for users to search, filter, and bookmark resources.
- Allow users to save and track their progress on career-related activities.

6. Front-End Development with Angular:

- Set up an Angular project using the Angular CLI.
- Create components, templates, and services for the user interface.
- Integrate user registration, login, profile management, and career guidance features.
- Implement user interfaces for searching and viewing career resources.

7. Connect Backend and Frontend:

- Establish communication between the Angular frontend and Node.js backend by making HTTP requests to the API endpoints.
- Ensure proper handling of data, errors, and responses.

8. Database Integration:

- Implement database connectivity using the Oracle Database driver for Node.js.
- Create functions to interact with the database, such as inserting user data, retrieving career resources, and updating user profiles.

9. Testing:

- Perform unit testing and integration testing for both the frontend and backend components.
- Test different user scenarios and edge cases.

10. Deployment

- Set up deployment environments for the frontend and backend, which may involve deploying Angular to a web server and Node.js to a hosting platform like AWS or Heroku.
- Configure production-ready settings, such as environment variables, security configurations, and database connections.

11. Monitoring and Maintenance:

- Implement monitoring tools to track application performance and user engagement.
- Regularly update and maintain the project to address bugs, security vulnerabilities, and new feature requests.

12. User Training and Support:

- Provide user training and support resources to help users navigate and make the most of the career guidance platform.

13. Data Security and Compliance:

- Ensure that user data is securely stored and that the project complies with data protection regulations and best practices

14. Scaling and Optimization:

- As the project grows, consider scaling the application to handle increased traffic and optimizing database queries for better performance.

15. Continuous Improvement:

- Gather user feedback and analytics data to make informed decisions about improving the platform.
- Iterate on the project to add new features and enhance the user experience.

Throughout the execution process, collaboration between frontend and backend developers, database administrators, and UI/UX designers is essential to create a seamless and user-friendly career-building guidance platform. Regular testing and feedback from users will also play a critical role in refining and enhancing the project over time.