ONLINE APPLICATION FORM FOR CDAC

Course Name: **DAC**

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WHAT OUR PROJECT DOES?

- Online application form is a platform for applying in CDAC for various courses.

- It is an online portal for registration.
- There is an option for searching city where you can find courses and centers.

- Anyone looking for a post graduation diploma for enhancing his/her.

- Students send feedback if he stuck in registration or what to know more about courses.

- In application form student have to fill personal information, Address and Education detail.

- All data save in database.

- There is a preview page in which if student can check all data fill is correct if any mistake they can use edit also.

- We will be using Angular along with Java for creating this application form.

WORK FLOW

HOME PAGE

*Navigation Bar

1. Option of home if click on home it come back to home page.
2. About us if you want to about CDAC and courses click on about us.
3. Contact us option click on contact us all detail how to contact to CDAC authorities and there address.
4. Send Feedback option if user want to send feedback or any query for application form he can send here.
5. Find us link navigate to find us page
5. Sign in button navigate to registration page.

*Login

1. If you register before put your email id and password and click on login navigate to personal information page.
2. If you are a new user Not registered ? Register here click here.

REGISTRATION PAGE

1. Put email id.
2. Put name.
3. Put password.
4. Put confirm password.
5. After click on register navigate to home page.

PERSONAL INFORAMTION PAGE

1. Fill all the information and click on next navigate to Education detail page.

EDUCATION DETAIL PAGE

1. Fill all the detail and click on submit it will navigate to preview page.

PREVIEW PAGE

1. Check all detail if you want to edit click on edit navigate to Personal information page
2. If click on submit data navigate to backend.

SERVICE LAYER

1. From angular's service layer function we are calling “/login”,”/registration”,”/personalinfo”, “/education”,”/feedback” on port 6071 on Controller of Springboot.

2. We create maven project version 2.4.1 we add dependencies like spring web, spring data JPA, driver, Java mail sender.

3. Using post mapping loginuser() user function saveUser() to insert the data.

4. registerUser() function for insert the data of registration.

5. Insertdata() function for insert personalinfomation data.

6. Saveeducation () function for insert Education data.

7. Savequery() function for insert Query data.

8. We create class for personalinfo, user, education, center for creating table all.

9. Using get method, taking one input, that is designation “/search?x=”+city. In our case input is city.

10. The above function is calling search() and insert using centresrepo.oncat(y).

SOME SCENARIOS WHERE WE GOT STUCK AND HOW DID WE OVERCOME

- **IN FROTEND:**
  - **Model mismmatch**. The service was returning an object array but the calling function was expecting an object.
    Solution: Changed the expected value to object array.

  - ***Data transfer** First data of personal information directly save in database for previewing the data we again get the data from database then show the data.
    Solution: We use session memory to store the data after previewing the data when user click on submit then we save the data.

  - How to do interaction between two components in Angular:
    Solution :Did a POC on (iii.) And (iv.) There are 4 ways-
    1. Parent component to Child component using @Input Decorator
    2. Child component to Parent component using @Output Decorator
    3. Using service layer function based on 'id selection'
    4. Sending data to the other component using 'queryParams' in component.ts
- **IN BACKEND:**
  - Spring Boot was creating its own table name (Table_name) if the name is kept in CamelCase (tableName) in the database due to which the columns were not mapped to the database table.
    1. Hibernate maps field names using a physical strategy and an implicit strategy which Spring Boot was not implementing by default. So added these two strategies in application.properties in src/main/resources.
    2. spring.jpa.hibernate.naming.implicit-strategy=org.hibernate.boot.model.naming.ImplicitNamingStrategyLegacyJpaImpl
    3. spring.jpa.hibernate.naming.physical-strategy=org.hibernate.boot.model.naming.PhysicalNamingStrategyStandardImpl.
  - One of the table names was position. It was giving error while performing any queries on this table because MySQL already has a function POSITION ().
    Solution :Changed the table name to oposition.

  - How to Authenticate User credentials and allow access to certain functions only when logged in to their respective accounts (Job Seeker and Recruiter).

Solution :The above strategy was not implemented instead separate links were provided for a user based on his role by using Session Storage.

WHAT WERE YOUR LEARNINGS DURING THIS PROJECT?

- We learnt to develop Full Stack application and learnt how Presentation Layer interacts with the Service Layer.
- We have learnt how to use component talking, routing between two components.
- How to Upload a file/image and deciding on the datatypes in MySql to match with Hibernate table columns.
- How to Authenticate User Credentials when the user logins to respective account using Session Storage present in lib.dom.d.ts .
- How to implement joins on two tables in Hibernate.
- Implementing the entire three-tier architecture using Angular as Presentation Layer, Spring Boot as Service Layer and Hibernate as DAO Layer Framework.
- Doing a small POC first before applying the logic in the project code.
- Always first check the value returned by a function by writing console.log() and looking at Console in the Developer Tools of the browser window.
- Scheduling and prioritizing tasks using ASANA by creating sprints.