

## Full Stack App Development Jigyasa Subedi, Class of 2022

Full stack application development consists of working on both client-side and server-side of an application in order to deliver a complete application. The client side is the visible side of an application or a website that the user can see and interact with. This is called front-end development. The server-side, on the other hand, is the “behind-the-scenes” functionality which powers the website or application, such as connecting to databases, and managing user connections and queries. This is the back-end component of application development.

For my full stack application development project, I was tasked to create a KYC form management system for potential customers of a leading bank. This consisted of a client registration page, a login page and the dashboard where the clients could update, edit or delete personal information. Having an online KYC form management system eliminates the need for physical paperwork and in-person verification. In order to create this application, I used several different technologies. For the front-end part, I used AngularJS, a framework used to develop single page web applications. For the back-end part, I used a combination of Spring Boot and PostgreSQL. Spring Boot is a Java based framework which is used to build stand alone and production ready applications while PostgreSQL is a free and standard Database language used to create and maintain the relational database management system.

While learning about the full stack application development process, I also learnt about Rest APIs, which are application programming interfaces that use restful urls for retrieving data. A Rest API works by making a request from a client to a server and data is retrieved over the HTTP protocol. Furthermore, I also learnt about and was able to implement JWT (JSON Web Token which is used to secure APIs) tokens in my application. JWT tokens are used to authenticate users before data is made available to them directly.

The screenshot displays a web application interface. At the top, there is a red navigation bar with the text "Clients List" and "Add Client". Below this, the main heading is "KYC Form for Client". The central part of the interface features a "Client List" table with the following data:

Account Type	Current Account Type	Account Currency	Name	Mobile	Email	Actions
Checking	Savings	NPR	Jigyasa	9843225630	jigyasa@gmail.com	<a href="#">Delete</a> <a href="#">Update</a> <a href="#">Details</a>

Below the table, there is a REST client interface showing an "Untitled Request" for a POST method to the endpoint `http://localhost:8080/api/users/register`. The request body is in JSON format:

```
1 {
2   "creatingAccountType": "Savings",
3   "currentAccountType": "Checkings",
4   "accountCurrency": "USD",
5   "name": "Jigyasa",
6   "mobile": "9843227630",
7   "email": "jigyasa@gmail.com"
8 }
```

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