

Assignment for Position (Python)

Bombay Softwares
25th February, 2021

Outline

Technologies to be used

- Django (<https://www.djangoproject.com/>)
- Jinja2 Template Engine (<https://jinja.palletsprojects.com/en/3.0.x/>)
- SQLAlchemy (<https://docs.sqlalchemy.org/en/14/orm/>)
- PostgreSQL (<https://www.postgresql.org/>)
- Vanilla Javascript / JQuery / React Js

PART A

1. Create a simple application with following screens
 - a. Signup
 - i. Asking user to fill following fields
 1. First Name
 - a. max length 80 characters
 2. Last Name
 - a. max length 80 characters
 3. Date of Birth
 - a. Add flatpickr library for this input
 4. Gender(Female/Male/Other)
 - a. Radio button, only one option could be selected
 5. Email (should be unique in database)
 6. Phone Number (should be unique in database)
 7. Type (Primary or Secondary) Only one option could be selected
 8. Password
 - a. Max length 16 characters
 - b. Password should have a number
 9. Confirm Password
 - b. Login
 - i. With email/phone number & password
 - c. Home
 - i. After successful login, the user should be redirected to the home screen where the user can see 3 options.
 1. Edit Profile
 2. Change Password
 3. View All Users
 - d. Edit Profile
 - i. Allow the user to update all details except Type.
 - e. Change Password
 - i. Allow user to change password.

- ii. After successfully updating the password, logout and ask the user to login again.
- f. View All Users
 - i. Display list of all users in a tabular format.
 - ii. The data should be paginated, meaning only 5 users should be fetched/visible at once, when user clicks on page number 2, it should fetch & display the next 5 users.
 - iii. The columns of the table will be :
 - 1. Name
 - 2. Data of Birth
 - 3. Gender
 - 4. Email
 - 5. Phone Number
 - 6. Type
 - iv. Provide a text input box placed above the table to search users with first name and last name, email, phone number and type. Users can type something and hit enter or search button, which should display only relevant users matching search criteria in the below table.

PART B

1. On “View All Users” screen(From Part A); user should be able to sort the data by Name, Email in ascending or descending order.
2. Implement the `Login via Gmail` option on Login Page.

PART C

3. Send a `Welcome` email to the user on their email address on successful registration.
4. Send a `Password Updated` email to the user whenever the user updates or changes the password.
5. Implement email sending using queues. (<https://python-rq.org/>)

Other things to note

1. The assignment is divided into 3 sections. Part A is mandatory, however completing Part B, Part C will increase the chance of being hired.
2. The UI should be clean. Bootstrap library recommended for UI.
3. All forms should have proper validation on the frontend and backend.
4. Upload your code on GITHUB. Share link to the repository in the email.
5. Share screenshots of the screens in the email.
6. A proper README file of the project including all relevant details.
7. Bonus points - If you can deploy the project on a server and share the link.

