TETOHA

Web Portal for STET(Teacher Eligibility Test) of Sikkim - 2020

Team-Info Note

LEADER /MEMBER	NAME	EMAIL ID	MOBILE NUMBER
Leader	PAVITHRA DEVI M	pavipd495@gmail.com	7904014309
Member	PONMALAR S	spmalarkumar123@gmail.com	9787710278
Member	POOJA LAKSHMI C	poojachidambaram@gmail.com	9840361725
Member	NIVETHA M	nivethamani1011@gmail.com	9994867763
Member	KRISHNA MOORTHY A	akrishnamoorthy007@gmail.com	9677068234
Member	DRAVID KUMAR B	dravid0510@gmail.com	7639221410

Features and Solutions:

"Security:

- With all the problem and the requirements in mind we build our web app entirely with **React, Type Script, Python** So the use data is completely secure from the most of the hacking techniques.

- We are having the mail verification for the security. Without verifying the email we cant log in. The entire application process contains mail notification like **whenever you logged in you receiving one mail alter**.

- The **password is fully hasted an stored** in the database, So **even admin and developer cant see** the password. The security is more high here.

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We are using the **JWT- Json Web Tokens for the security purpose**, User can not be in our web page more than 30 mins this will more secure our account. **For example** You logged in your account in tour friends laptop or in any computer centers and forgot to log out in that situation you don't worry about that because the account will be automatically logged out after 30 mins.

Our routes are fully secured and free from the high security vulnerabilities.

We are ensure the data privacy of the candidates by we didn't used any kind of APIs and 3ed parties in our web site.

Accuracy:

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- We are verifying the documents with the help of the **OCR(Machine Learning and Deep Learning) and Image processing . OCR is the highly trained machine learning model so the accuracy will be high.** We extracted the required features from the document using the OCR and image processing.

- We are verifying the **documents in the 3 stages**

- verify the originality of the documents

- verify that uploaded all documents are belonged to the particular person who is the candidate.

- Eligibility test

1)verify the originality of the documents

The extracted features **are cross checked with the Sikkim Government data base**(for demo we created on by our own), if the features are present in the database we can say the document is original.

2) verify that uploaded all documents are belonged to the particular person who is the candidate.

Here we are checking all the document containing the same name and **DOB and also checking that the document** name is same as the user entered name. By doing this two we can say that the documents are belonged to the same particular person.

3)Eligibility test:

We are collected the **eligibility criteria that was given by the Sikkim state** for the STET examination. And checking the persons application must satisfies the criteria for the **Primary and Graduate Examinations.**

Admit contain the Photo and Sign , center name , Registration number, Center google map link. We have to check that the signature photo and the sign of the candidate in the exam hall is same to check the correct person.

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Run in very low Network Area:

We are using the **Boostrap, CSS and Material UI in our web app**, This stylesheet is already downloaded in most of our phone and laptop, so it will not take more time to load.

It will load in network range from **20 kb – 45 kb in very good** and smooth manner.

Even reduce the network issues we completely **omitted the graphical and Animation** kind of things.

The routes are very high speed and secure.

Technologies

Python – The Machine Learning and image processing language.

Image Processing Technique (OpenCV) – Verify the documents .

OCR – High security feature extraction from the PDF, JPNG, PNG format data.

React, Type Script – For web app development.

Google Mangodb Atlas – Data storage.

THANK YOU!!

By

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