A Project Report on

Jansevakam : Web Framework for NGO Outreach

Submitted in partial fulfillment of the requirements for the award
of the degree of

Bachelor of Engineering

in

Information Technology

by

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Approval Sheet

This Project Report entitled ***"Jansevakam:Web framework for NGO Outreach"*** Submitted by ***"Suraj Tetme"(19204004)*** is approved for the partial fulfillment of the requirement for the award of the degree of ***Bachelor of Engineering*** in ***Information Technology*** from ***University of Mumbai***.

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CERTIFICATE

This is to certify that the project entitled ***"Jansevakam:Web framework for NGO Outreach"*** submitted by ***"Suraj Tetme" (19204004)*** for the partial fulfillment of the requirement for award of a degree ***Bachelor of Engineering*** in ***Information Technology***,to the University of Mumbai,is a bonafide work carried out during academic year 2021-2022.

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Declaration

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, We have adequately cited and referenced the original sources. We also declare that We have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

(Suraj Tetme - 19204004)

Date:

Abstract

In India, Non-Governmental Organizations are seen to have a significant role in community development practice. NGO's are established with a vision by a group of like-minded people committed for community development, uplift of poor people. Importance of NGO's in various fields and the excellent work is done by NGO's in specific fields is no doubt a good task that has helped to meet the changing needs of the today's world full of crisis. But, now a days, many NGO's in India is facing various problems and challenges which are creating barriers in the implementation of various developmental programs. In this context efforts have been made through this study to focus on the major problems or challenges faced by Indian NGO's. The result of the study shows that NGO's are facing financial problems, HR related challenges, administrative and social problems in the implementation of various social developmental programs.

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List of Abbreviations

ML:	Machine Learning
SVD:	Singular value decomposition
CSS:	Cascading Style Sheets
JS:	JavaScript

Chapter 1

Introduction

NGO's are seen to have a central role in development practice, but the question that-remain unanswered, and probably never can be answered, is what role (or roles)-should this be? This is not a new question; ever since NGO's as institutional forms came to have a role in social development in the eighteenth and nineteenth centuries, governments have seen them as service providers, while the NGO's supporters have seen them as advocates for social change. This project proposes to move the debate forward by looking at the factors that make NGOs' work effective, and the issues that NGO's face in meeting these requirements. In this project we have studied about local NGO's across India as a case study, as they are well established, have a strong social change focus mainly through society empowerment programs, and are undergoing rapid structural change as a result of India's rapidly growing economy and the related change in their funding sources.

10 Criitical Problems faced by Ngos

- Lack of Long-Term Strategic Planning
- Poor Cooperation with Mass Media
- Lack of Commitment
- Lack of Feedback
- Lack of Social Support Suppresses Enthusiasm
- Lack of maintenance
- Lack of Strategic Planning
- Unwillingness to Cooperate with Each Other
- Lack of Professional Experience of Working in a Particular Area
- Lack of Grants and International Cooperation

One of the important things that we are trying to do here is to essentially optimize the process of social work. We are using technology to increase the scope at which collaboration in social activities takes place. We are developing a web framework to make it easier for volunteers and NGOs to collaborate with one another.

All the highly impactful ideas had these two things in common :

- Connected people who offered a particular server to people who needed it.
- Tech-enabled scalability.

We are doing the same thing with the concept of social work. We'll be connecting volunteers to NGOs. People essentially have different fields of interest. It is much easier for them to contribute in their own field of interest. If that particular field of interest is present in social work it's a big plus for society. Jansevakam essentially helps facilities that interconnect between NGOs and volunteers.
One of the important tasks in facilitating this connection is essentially finding out what type of volunteers are interested in what type of social work. Such important tasks are attend with the help of modern computing miracles like machine learning. By leveraging the power of machine learning we have created a recommendation system that recommends users based upon their fields of interest. Every post will have its interest tag which will help in determining what posts are to be recommended to what users.
On an abstract level it could be summarised up in these points :

- An ngo will make a post about social work.
- As volunteers will see that particular post.
- If he or she likes that post more of such posts would be recommended to them.
- That recommendation would essentially work on a field of interest.
- If you are more passionate about education more social work related to education would be recommended to you.

Once a user logs into our systems best recommendation would be used to ensure that they are more engaged on our platform. This engagement for result participation and social activities by them. Long term goal of any social activity is to involve as many people as possible into solving a problem faced by many. So to sum it up in a few words Jansevakam helps in identifying a potential set of volunteers and ensures as many as possible social work which has alignment with their field of interest reaches them. Jansevakam may not be able to solve all the seven critical problems faced by NGOs but it surely is a step in the right direction. It will help in making the lives of NGOs much easier. It will also promote more good into society. You know the old saying "happiness increases with sharing" the more we share good ethical code into our society the stronger it will be. Having good social security is definitely a part of that.
Jansevakam will serve as a critical infrastructure for social activities.

Advantages

- Quickly find volunteer to carry out big campaign
- Improve scale of campaigns.
- Improved reach on a demographic scale.
- Fastpaced impact.

- Adding growth mindset to delivery of social services.
- Beneficial to societal betterment.
- Collaboration framework with social interaction.
- Internet as a infrastructure.

As our society is becoming more fast-paced such fastpaced solutions provide a critical value in improving the broader range of implementing such collaborative efforts of problem. Individualized betterment of the volunteering experience

Chapter 2

Literature Review

In literature the author has discussed on the performance of development non-governmental organizations (NGO's) has increased. The author has described an international structured literature review, and explored the salient characteristics of NGO performance research. We have demonstrated that understanding NGO performance is a multifaceted arena in which many issues are explored by academics, NGO practitioners, donors, governments and policymakers. Not withstanding the modest number of studies that fully met the inclusion criteria, emergent evidence supports three key conclusions and recommendations with research, practice and policy implications. In literature the author has discussed The Role of NGO's in Promoting Empowerment for Sustainable Community Development. NGO's are professionally-staffed organizations aiming at contributing to the reduction of human suffering and to the development of poor countries .They do this in various ways, e.g. by funding projects, engaging in service provision and capacity building, contributing to awareness, and promoting the self-organization of various groups. These services help the people to achieve their ability, skill and knowledge, and take control over their own lives and finally become empowered. This paper demonstrated the importance of NGOs in achieving sustainable community development through micro-finance, capacity building and self-reliance.

In literature the author has discussed about the Non-governmental organizations (NGOs) working in disadvantaged communities have a variety of data-collection and analysis needs, for example, for performing surveys or monitoring programs. Because much of this data collection occurs in environments with insufficient IT support and infrastructure, and among populations not always comfortable with technology, paper forms rather than electronic methods remain the predominant means for data collection. We consider the design of machine-readable paper forms for NGOs. We first examine the unique needs of NGOs that interact with underprivileged populations through interviews with eleven organizations and an in-depth investigation of one NGO's specific form-filling requirements. These explorations led to a focus on numeric forms – forms with questions requiring responses largely constrained to numbers. We then present an experiment which evaluates how a variety of formats for numeric data would fare with users from backgrounds similar to those who might fill out such forms. Our goal was to balance the trade-off between ease-of-use among our intended population and machine readability. Combining the results of the experiment with an analysis of machine-readability from a technical perspective, we propose the best numeric input methods for different NGO form filling requirements.

In this literature author has deeply explained about the mechanism of Traditional site traffic analysis based on site visits, page views, number of posts, and length of stay provides only limited insights to online human behaviours. The focus of the paper is to develop a systemic metric for evaluating online social software, and particularly online forums. In the context of NGO sectors, the metric materializes to fit the settings and interests of the organizations with a special focus on the forum's values on human behaviours such as information sharing and peer support.

In this paper author proposes an idea about the online web portal which will be looked up as a hub for non-Government organizations and their needs. The main advantage of developing such portal is to remove the tedious task of NGO's of finding donors or finding volunteers in order to fulfill the requirement of NGO. Another advantage is that we can easily find NGO or volunteer over the Internet rather than a manual system such as by giving an advertisement in Newspaper etc. It will be also beneficial for not only to the volunteers or donors, but also for the NGOs and conducting other social events such as Blood donation campaign, Awareness Workshops etc. It will also give ease in maintaining records. Overall it will prove as an essential tool for the smooth functioning of the NGOs and a great assistance for its users.

Chapter 3

Objectives

- To design and implement a web app.
- To implement core authentication features to provide personalized experience.
- To build a recommendation system using machine learning which will automatically suggest new NGO's and new social activities based on user past activities.
- To make our app compatiblw with more devices.
- To create an admin portal to give user verification badge.

Chapter 4

Project Design

4.0.1 Existing system architecture

NGOs depend on many funding sources including government grants, private donors, foundations, CSR, etc., to sustain their daily operations. Relying on external sources means that the NGO is at the mercy of others to make it financially stable. Things are good while they last, but the moment a funding cut is introduced or a foundation decides to divert their funds elsewhere, your NGO can be left high and dry. Not to mention the fact that external sources require time, energy and investment on a regular basis to keep recurring donations coming. NGOs need to look at innovative ways to sustain their financial needs which do not involve external sources but leverage the NGOs internal resources for income.

NGOs work really hard for their beneficiaries and many are successful in reaching their goals. But they can lose out on recurring or potential funding without a proper system of demonstrating the value they are bringing to the community. Displaying up-to-date results of an activity or a fundraising campaign in a clear and transparent manner will keep donors in the loop. It will also demonstrate accountability on the part of the NGO.

Branding, marketing and advertising are considered taboo words for NGOs and yet, in this day and age, any organization which wishes to reach its target audience, requires a marketing and branding in order to sustain itself. Social work requires solving problems in the real world, and the best people to help an NGO to do so are its volunteers and donors. In order to keep in touch with existing and potential volunteers and donors as well as the larger community, it is important that there is regular communication. NGOs need to start thinking of themselves as brands which need to build brand awareness and brand recall through messaging.

NGOs are community led initiatives that usually start small and but eventually grow into larger organizations. With growth come many challenges including administration, budgeting, expense tracking, volunteer and donor relations, etc. While all of this can be kept on track manually, NGOs can use technology to automate tasks and keep things in order. This way, information can be available at a short notice on your fingertips. It will also free up staff to do things that more urgent or productive.

Many NGOs favor a "hardware" approach to development through building infrastructure and providing services instead of empowering people and institutions locally. Overall, their development approaches are not as flexible, sustainable and relevant to the community as they could be.

4.0.2 Proposed System Architecture

- We are implementing front-end and a back-end.
- For the front end we are implementing a plethora of features like searching, tags etc.
- We are recommending posts using ml.
- We are using CSS to style our website the and make it responsive.

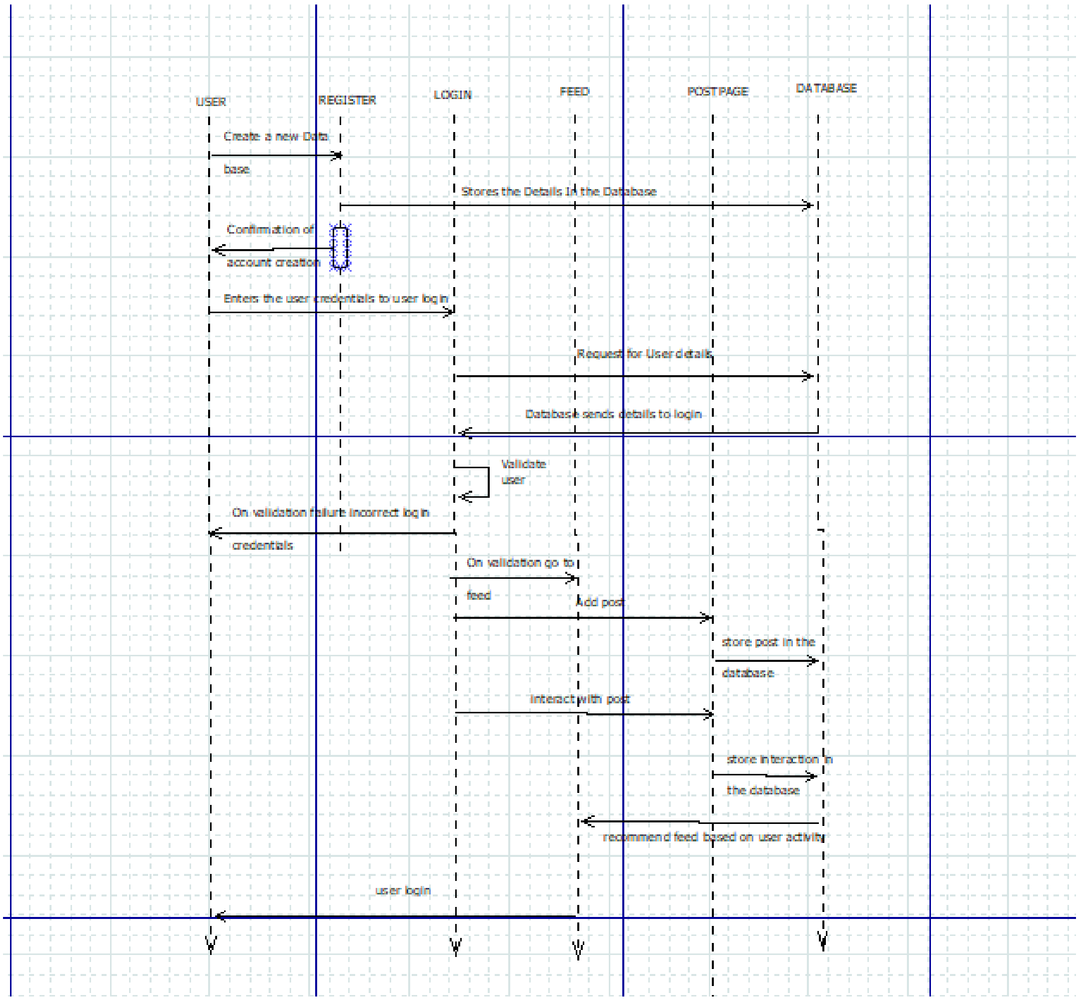

USER
REGISTER
LOGIN
FEED
POSTPAGE
DATABASE
Create a new Data base
Stores the Details In the Database
Confirmation of account creation
Enters the user credentials to user log in
Request for User details
Database sends details to login
Validate user
On validation failure incorrect log in credentials
On validation go to feed
Add post
store post in the database
interact with post
store interaction in the database
recommend feed based on user activity
user login

Figure 4.1: System Flow Diagram

Login

Login is a very important part of a website. As it ensures a unique experience. Login Page is very common among any type of secured applications and its widely used on the internet for authenticating the user before presenting the secured pages of the web applications. For example to use Facebook you have to get authenticated by the Facebook before they give you access to their platform. The user authentication is done through a special web page called Login Page. The Login page asks you to enter your credentials which is then validated by the application and after successful validation you are presented with the secured part of the application.

- Login Page is the page where you can get authenticated before the access of the application.
- Insecure Login Page may lead to application security vulnerabilities in the web applications. So, you should properly secure your login page with the SSL and other security measures.
- Login helps user in gaining access to services provided by our website.

Registration

To register yourself for a new account. Different web portals might use different terms for returning users but they all use “sign up” or ”register” for the process of first time registration. It simply means to create a new account – be it a portal, application, or newsletter. When you wish to access some portal or application for the very first time, you need to sign up. Simply speaking, when you sign up for something, you actually register yourself as a new user. It is an action that better describes how you can interact with the websites. Sign up simply means to create an account.

Feed

Feeds are list of post widgets generated by aggregators that contain content from various social media accounts. To do this we have aggregation tool that will get access to your accounts and get all the mentioned content from other users who posted about your interest. The aggregation tool we are using is a recommendation system. feed in our app is implemented in such a way that more posts recommended to a person if a person shows interest in them. This recommendation would be based on tags.

Recommendation system

This recommendation system built using SVD algorithm. The Singular Value Decomposition (SVD), a method from linear algebra that has been generally used as a dimensionality reduction technique in machine learning. SVD is a matrix factorisation technique, which reduces the number of features of a dataset by reducing the space dimension from N-dimension to K-dimension (where K¡N). In the context of the recommender system, the SVD is used as a collaborative filtering technique. It uses a matrix structure where each row represents a user, and each column represents an item. The elements of this matrix are the ratings that are given to items by users. The equation for SVD is :

$$USV^T$$

4.0.3 UML diagrams

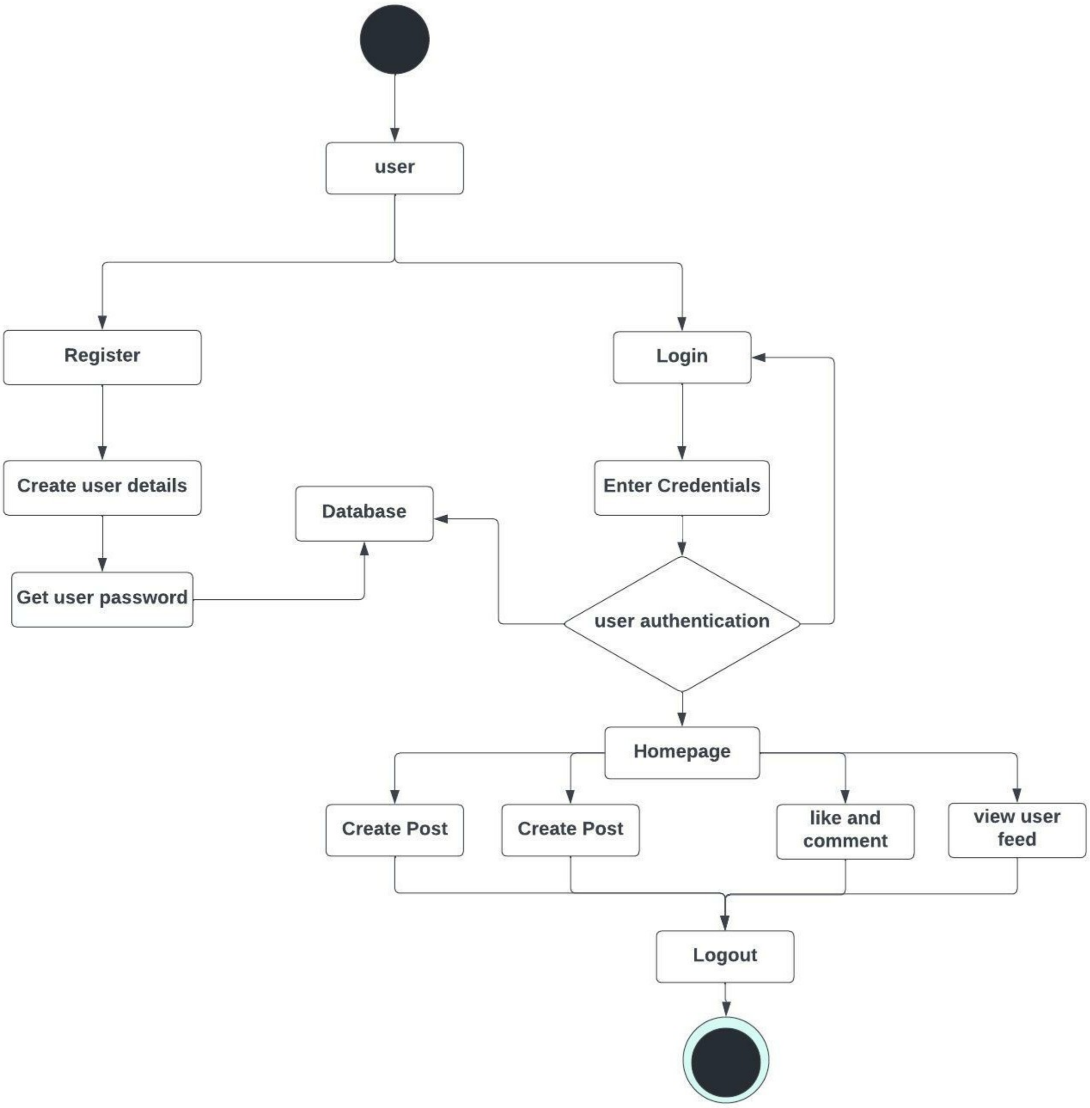


Figure 4.2: Website Activity Diagram

An activity diagram is like a flowchart, representing flow of control from activity to activity, whereas, the interaction diagrams focus on the flow of control from object to object. Activities result in some action, which is made up of executable atomic computations that result in a change of state of the system or the return of a value. Actions involve calling another operation, sending a signal, creating or destroying an object or some pure computation, such as evaluating an expression.

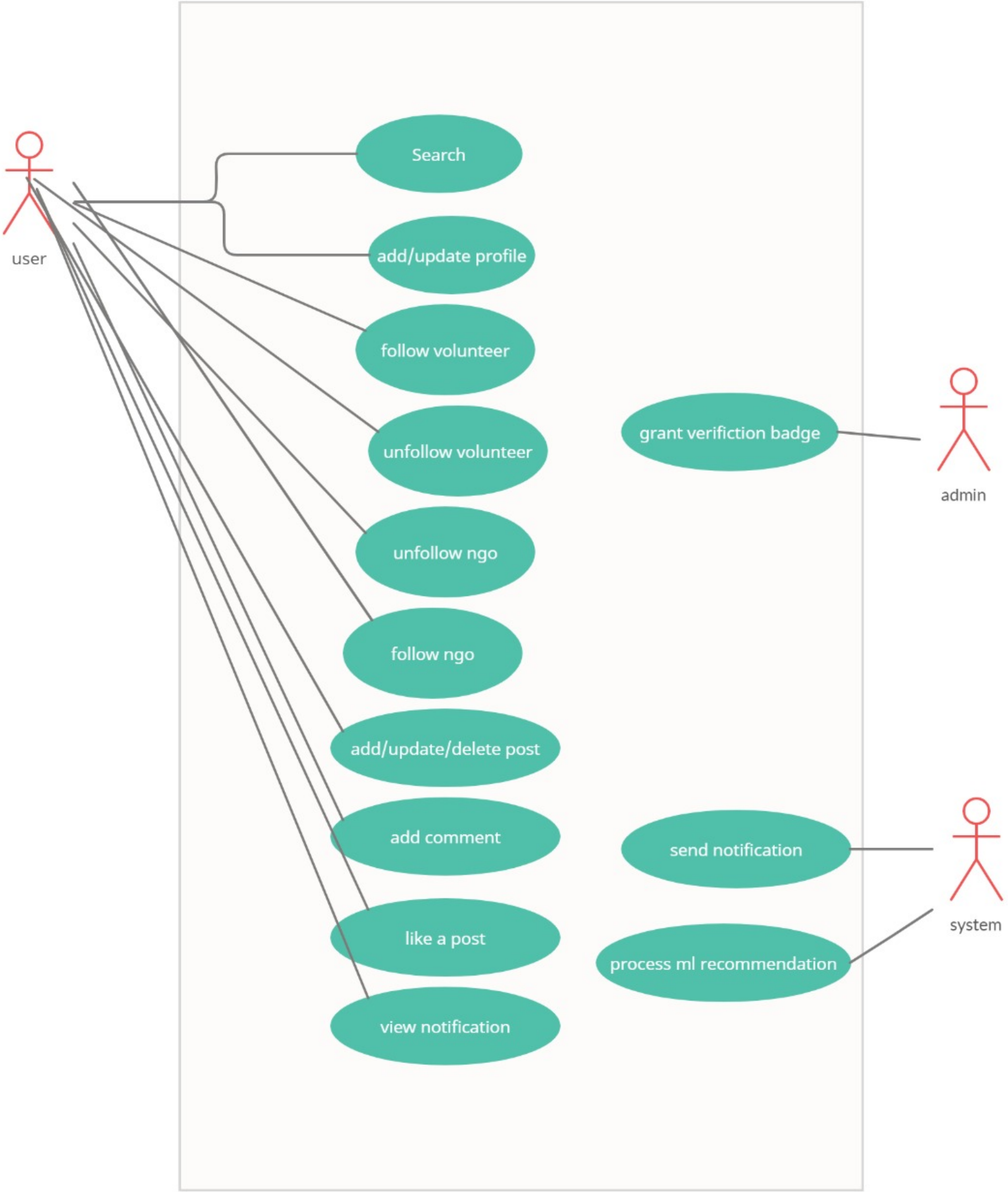


Figure 4.3: Usecase Diagram

Use-case diagrams illustrate and define the context and requirements of either an entire system or the important parts of the system. You can model a complex system with a single use-case diagram, or create many use-case diagrams to model the components of the system. You would typically develop use-case diagrams in the early phases of a project and refer to them throughout the development process. This use-case diagram is showing all the stake holders in the stake holder with their interactions and participation in our web app for ngos and volunteers.

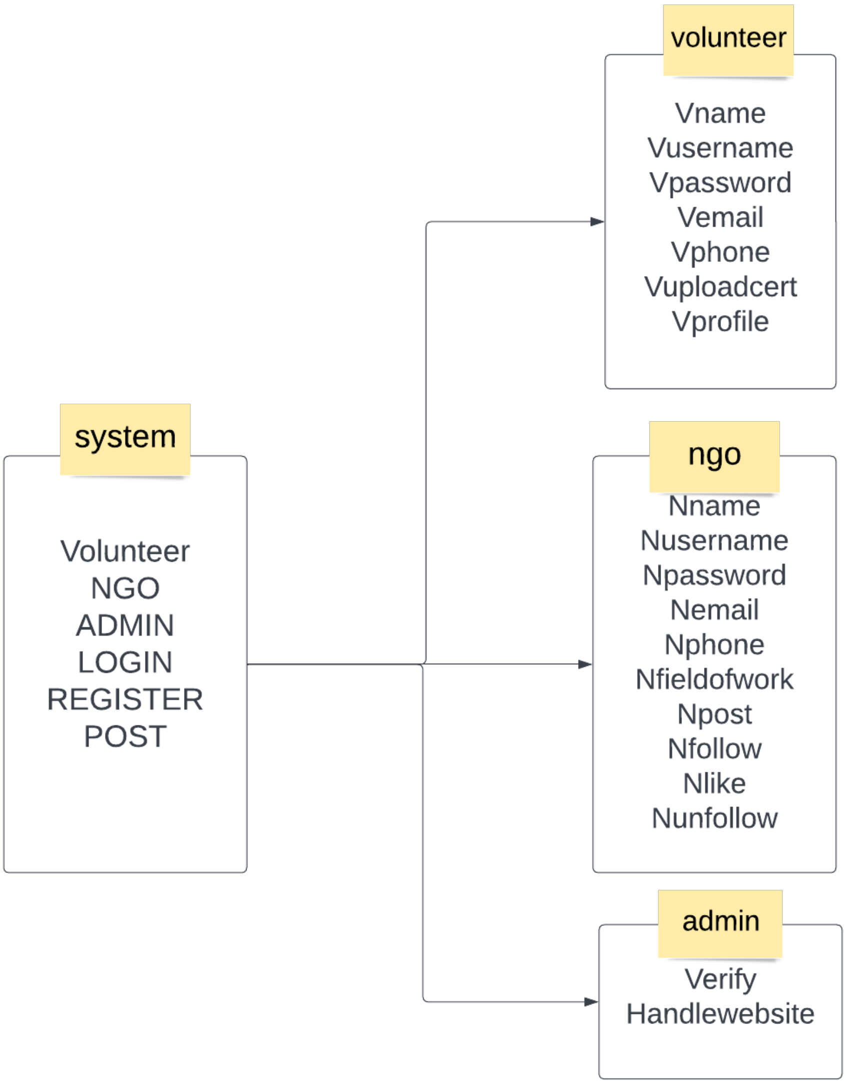


Figure 4.4: Class Diagram

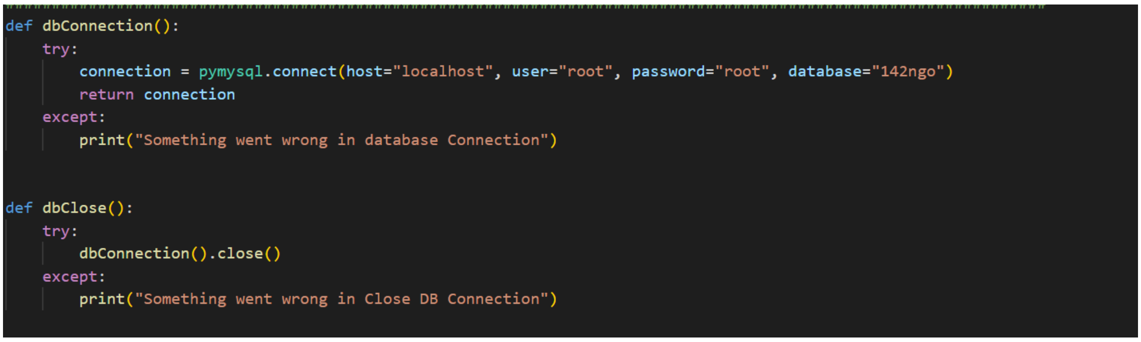
Class diagrams are the main building blocks of every object-oriented method. The class diagram can be used to show the classes, relationships, interface, association, and collaboration. Since classes are the building block of an application that is based on OOPs, so as the class diagram has an appropriate structure to represent the classes, inheritance, relationships, and everything that OOPs have in their context. It describes various kinds of objects and the static relationship between them.

Chapter 5

Project Implementation

5.1 Database Connection

Data access methods facilitate understanding of development and the problems they are trying to solve. We are creating dbConnection() function in which we create connection object. In pymysql.connect() function we are passing hostname,user which in this case is root and password and finally the name of the database. After the successful db connection we are closing the connection using dbConnection.close().



```python
def dbConnection():
    try:
        connection = pymysql.connect(host="localhost", user="root", password="root", database="142ngo")
        return connection
    except:
        print("Something went wrong in database Connection")


def dbClose():
    try:
        dbConnection().close()
    except:
        print("Something went wrong in Close DB Connection")
```

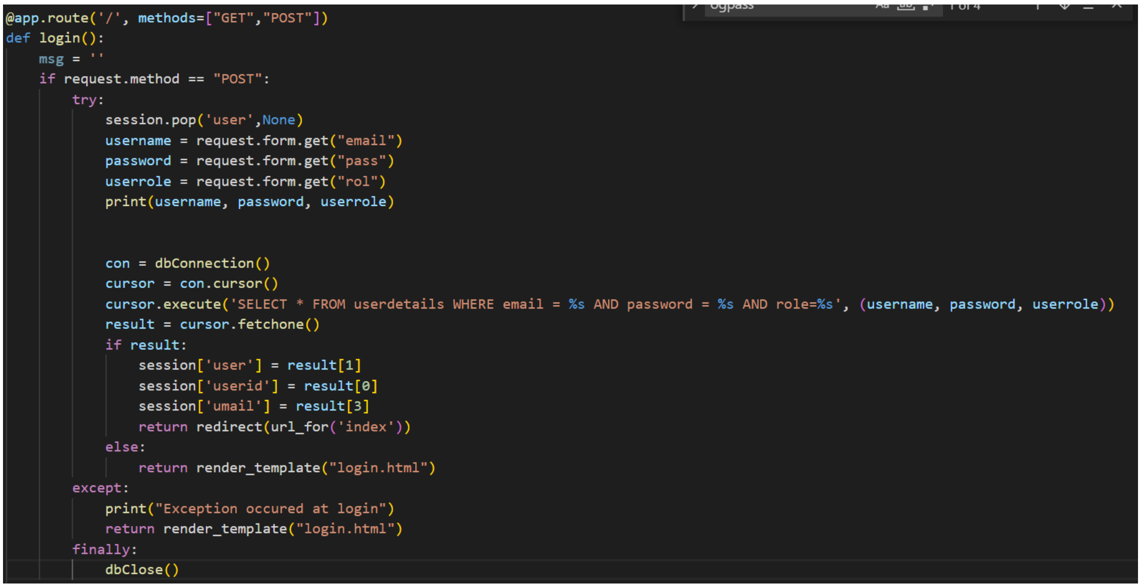
Figure 5.1: database connection

Code summary

- Database is preconfigured with credentials.
- We're giving those credentials via code.
- Database checks the authenticity of those credentials gives access.

5.2 Login

In login section user can login as volunteer and as a NGO. But before that user needs to register themselves. User needs to provide username which is nothing but email of the user and password. This login credentials will pass to the backend database and it will check whether the user is authentic or not. If the user is authentic then it will redirected to the main home page.



```
@app.route('/', methods=["GET","POST"])
def login():
    msg = ''
    if request.method == "POST":
        try:
            session.pop('user',None)
            username = request.form.get("email")
            password = request.form.get("pass")
            userrole = request.form.get("rol")
            print(username, password, userrole)


            con = dbConnection()
            cursor = con.cursor()
            cursor.execute('SELECT * FROM userdetails WHERE email = %s AND password = %s AND role=%s', (username, password, userrole))
            result = cursor.fetchone()
            if result:
                session['user'] = result[1]
                session['userid'] = result[0]
                session['umail'] = result[3]
                return redirect(url_for('index'))
            else:
                return render_template("login.html")
        except:
            print("Exception occured at login")
            return render_template("login.html")
        finally:
            dbClose()
```

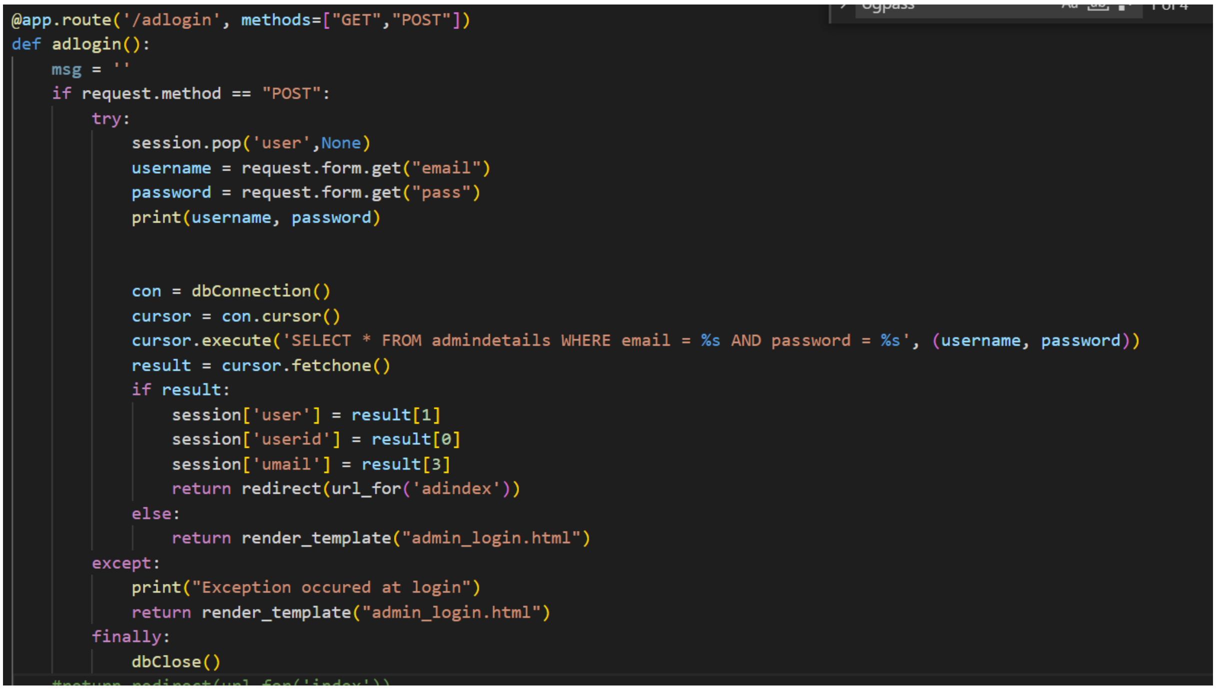
Figure 5.2: database connection

Code summary

- User gives the input of login credentials.
- Credentials of that particular user are fetched from db.
- If they match then login succeeds else it fails.

5.3 Admin

Admin pays a very important role in our system. Allotment of verification batch to users is handled by admin. Once a user register's they don't have verification batch admin allots verification badge from admin portal.



```
@app.route('/adlogin', methods=["GET","POST"])
def adlogin():
    msg = ''
    if request.method == "POST":
        try:
            session.pop('user',None)
            username = request.form.get("email")
            password = request.form.get("pass")
            print(username, password)


            con = dbConnection()
            cursor = con.cursor()
            cursor.execute('SELECT * FROM admindetails WHERE email = %s AND password = %s', (username, password))
            result = cursor.fetchone()
            if result:
                session['user'] = result[1]
                session['userid'] = result[0]
                session['umail'] = result[3]
                return redirect(url_for('adindex'))
            else:
                return render_template("admin_login.html")
        except:
            print("Exception occured at login")
            return render_template("admin_login.html")
        finally:
            dbClose()
    #return redirect(url_for('index'))
```

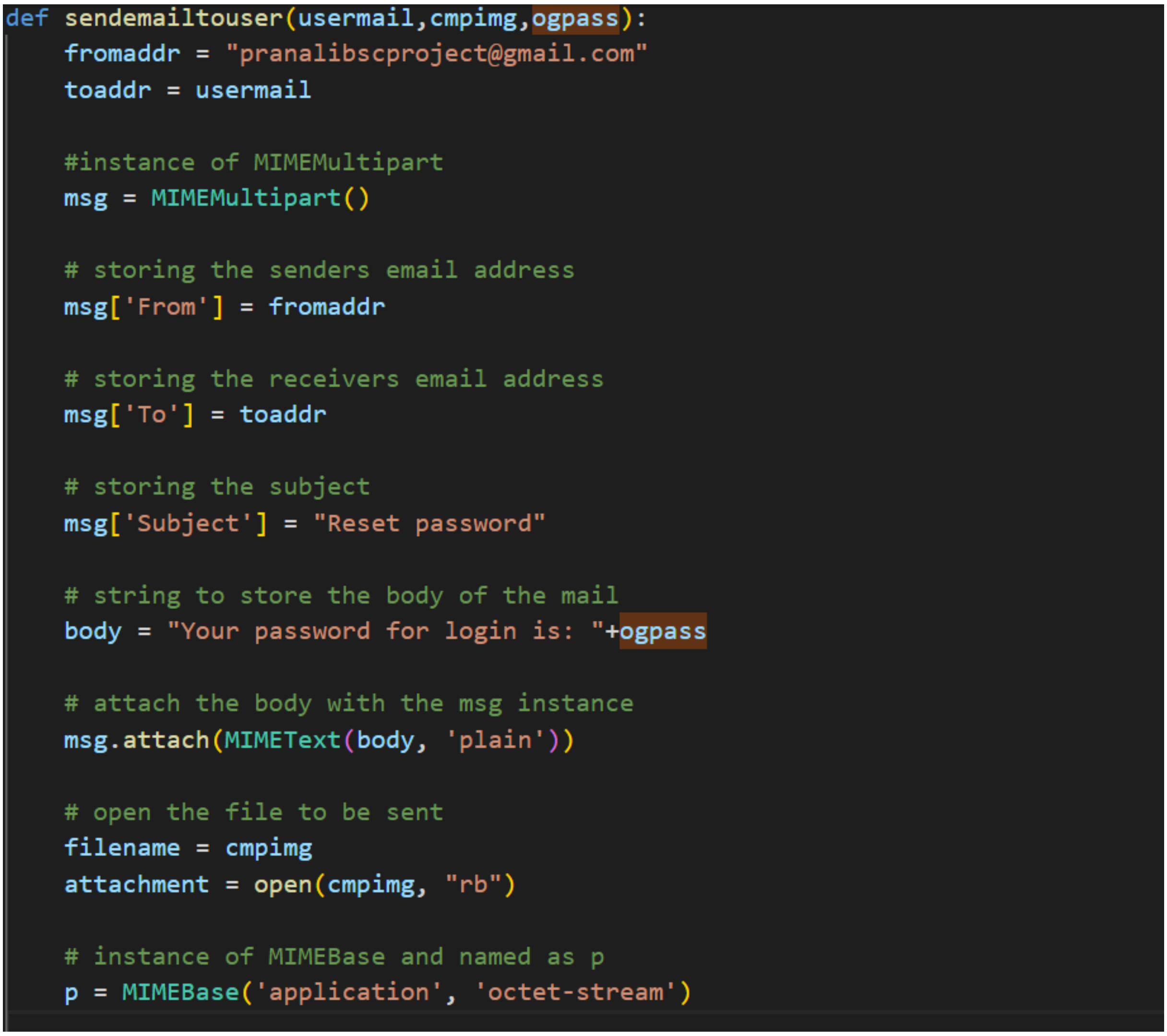
Figure 5.3: Admin code

Code summary

- Admin login is created with designated credentials.
- Credentials of admin are fetched from db.
- If they match then login succeeds else it fails.
- All the granting of privileges of admin depends on this login.

5.4 Password recovery

For password recovery we are configuring with SMTP mail server and port is 465. For that we need to specify mail ID and mail password. The email and password which you mentioned from that account the mail will be sent to the register user. Along with mail the password will also be sent.

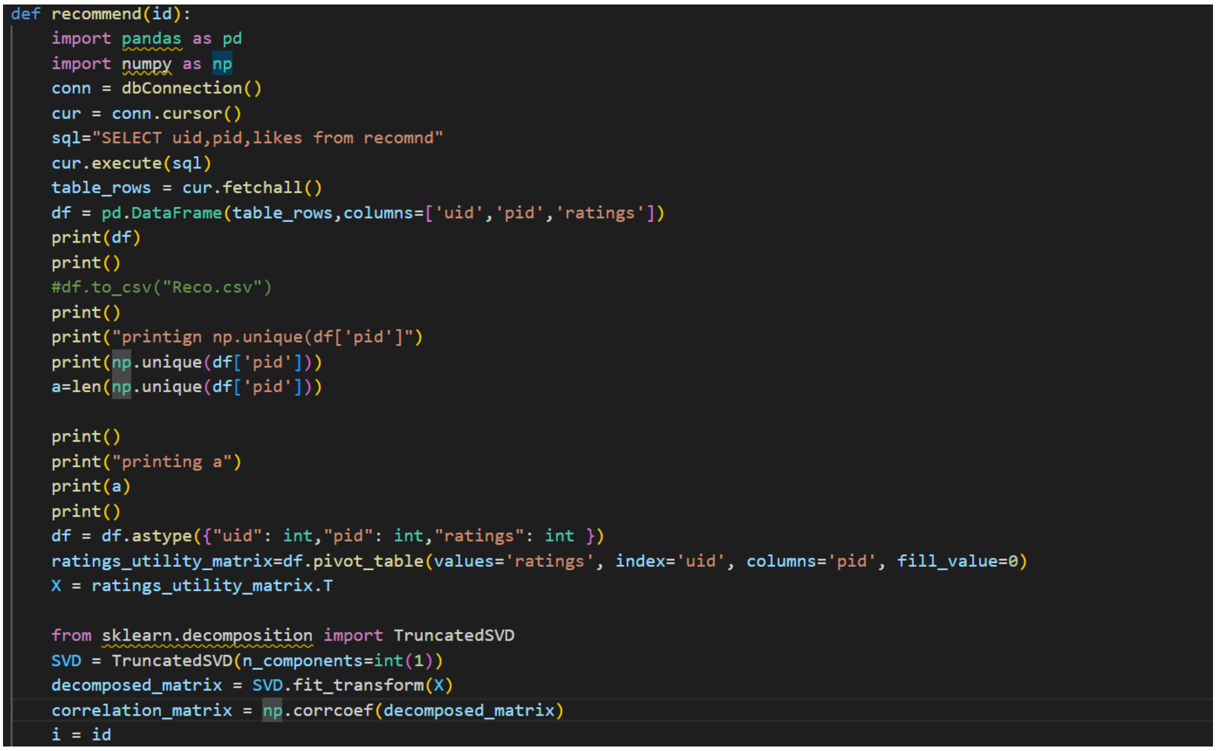


```
def sendemailtouser(usermail,cmpimg,ogpass):
    fromaddr = "pranalibscproject@gmail.com"
    toaddr = usermail

    #instance of MIMEMultipart
    msg = MIMEMultipart()

    # storing the senders email address
    msg['From'] = fromaddr

    # storing the receivers email address
    msg['To'] = toaddr

    # storing the subject
    msg['Subject'] = "Reset password"

    # string to store the body of the mail
    body = "Your password for login is: "+ogpass

    # attach the body with the msg instance
    msg.attach(MIMEText(body, 'plain'))

    # open the file to be sent
    filename = cmpimg
    attachment = open(cmpimg, "rb")

    # instance of MIMEBase and named as p
    p = MIMEBase('application', 'octet-stream')
```

Figure 5.4: Password Recovery

5.5 Recommendation Functionality

This is the main code section in our project. The libraries which we are using in recommendations are pandas, numpy. For model training we are using SVD algorithm. Importing TruncatedSVD from sklearn.decomposition. This algorithm works on matrix it will shuffle post id as row and user id as column and store the like counts of the user on particular on that selected cell. And finally we are giving these data to SVD.transform() for predicting the output. Finally recommend the first five post to that user according to their interests.

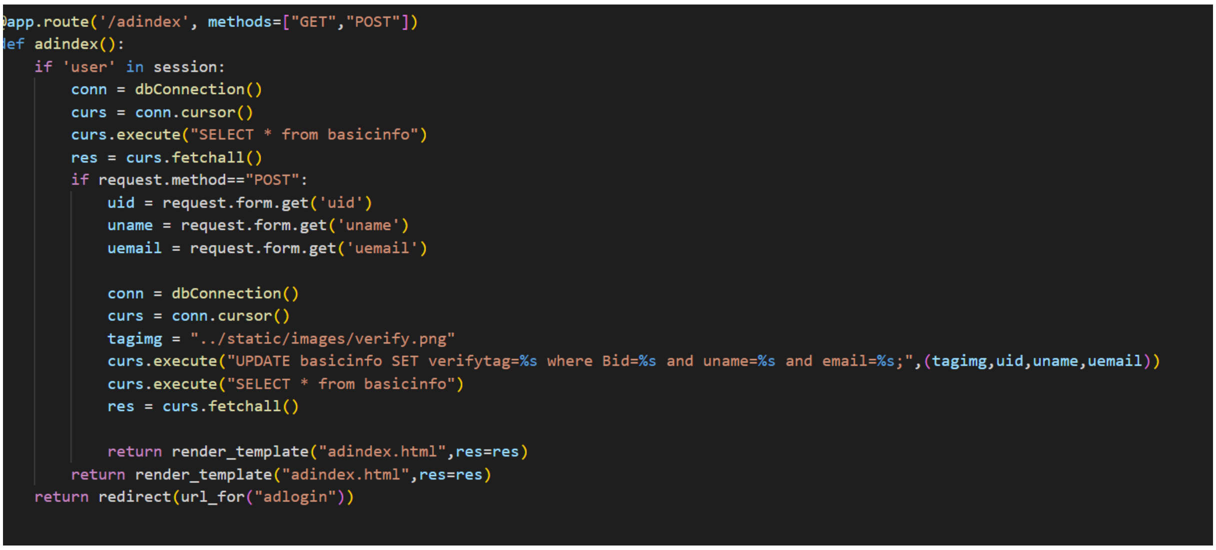


```
def recommend(id):
    import pandas as pd
    import numpy as np
    conn = dbConnection()
    cur = conn.cursor()
    sql="SELECT uid,pid,likes from recomnd"
    cur.execute(sql)
    table_rows = cur.fetchall()
    df = pd.DataFrame(table_rows,columns=['uid','pid','ratings'])
    print(df)
    print()
    #df.to_csv("Reco.csv")
    print()
    print("printign np.unique(df['pid']")
    print(np.unique(df['pid']))
    a=len(np.unique(df['pid']))

    print()
    print("printing a")
    print(a)
    print()
    df = df.astype({"uid": int,"pid": int,"ratings": int })
    ratings_utility_matrix=df.pivot_table(values='ratings', index='uid', columns='pid', fill_value=0)
    X = ratings_utility_matrix.T

    from sklearn.decomposition import TruncatedSVD
    SVD = TruncatedSVD(n_components=int(1))
    decomposed_matrix = SVD.fit_transform(X)
    correlation_matrix = np.corrcoef(decomposed_matrix)
    i = id
```

Figure 5.5: Recommendation Functionality

5.6 Badge verification

Badge verification serves as a critical component in the website. Badge verification can be done by admin.



```
@app.route('/adindex', methods=["GET","POST"])
def adindex():
    if 'user' in session:
        conn = dbConnection()
        curs = conn.cursor()
        curs.execute("SELECT * from basicinfo")
        res = curs.fetchall()
        if request.method=="POST":
            uid = request.form.get('uid')
            uname = request.form.get('uname')
            uemail = request.form.get('uemail')

            conn = dbConnection()
            curs = conn.cursor()
            tagimg = "../static/images/verify.png"
            curs.execute("UPDATE basicinfo SET verifytag=%s where Bid=%s and uname=%s and email=%s;",(tagimg,uid,uname,uemail))
            curs.execute("SELECT * from basicinfo")
            res = curs.fetchall()

            return render_template("adindex.html",res=res)
        return render_template("adindex.html",res=res)
    return redirect(url_for("adlogin"))
```

Figure 5.6: Password Recovery

Code summary

- Users are fetched from the database.
- Credentials of that particular user are fetched from db.
- Admin will select a user.
- Admin can modify verification status for it.
- Once the verification status is modified those changes are made into database.
- From the next time that user is fetched the the new verification status will be seen.

Chapter 6

Testing

Out of different standard testing methods available, unit testing has been used as our main testing method. It is a testing process that tests individual components of the application in terms of its functionality and working.
In our progressive web-app we have several such units in place that perform their respective action based on the user's input. These small units include creating an user account,adding new post, updating timeline, monitoring the user activities from the admin end. From the user's end it includes registering on our web-app, following and unfollowing other users,liking post feed generation on basis of past user activities. And in common, the registration and login component includes taking user's details and verifying them later. For all the above mentioned components we found testing them individually has best suited here. Unit testing has also been used because it helps in finding any issues at earlier stage and in the individual component rather than finding it later in the entire application.

6.0.1 Functional Testing

Unit Testing

Unit testing is the first level of testing and is often performed by the developers themselves.It is the process of ensuring individual components of a piece of software at the code level are functional and work as they were designed to. Developers in a test-driven environment will typically write and run the tests before the software or feature is passed over to the test team. Unit testing can be conducted manually. Unit testing will also make debugging easier because finding issues earlier means they take less time to fix than if they were discovered later in the testing process.
The Unit testing is best suited for our application development phase. In that phase, we started to code in units create different modules. And test each module separately, like the login page, register page, home page,contact page, admin page,feedback page, etc. All these pages are tested and debugged before going further integrating. And check whether we are getting the desired output from each module as for the objectives.

Integration Testing

After each unit is thoroughly tested, it is integrated with other units to create modules or components that are designed to perform specific tasks or activities. These are then tested as group through integration testing to ensure whole segments of an application behave as

expected (i.e, the interactions between units are seamless). These tests are often framed by user scenarios, such as logging into an application or opening files. Integrated tests can be conducted by either developers or independent testers and are usually comprised of a combination of automated functional and manual tests.
As we have discussed unit testing the next step is integration testing. All the units which we have tested and debugged are now ready to integrate into a whole single module. The integration part is crucial as we need to know which unit must interact without error, calling them in a different class accessing the instance of that class all these can be cleared with help of the sequence diagram which was represented in Project Design. So accordingly, modules are integrated and checked whether they behave as for the objectives.

6.0.2 Non Functional Testing

Compatibility Testing

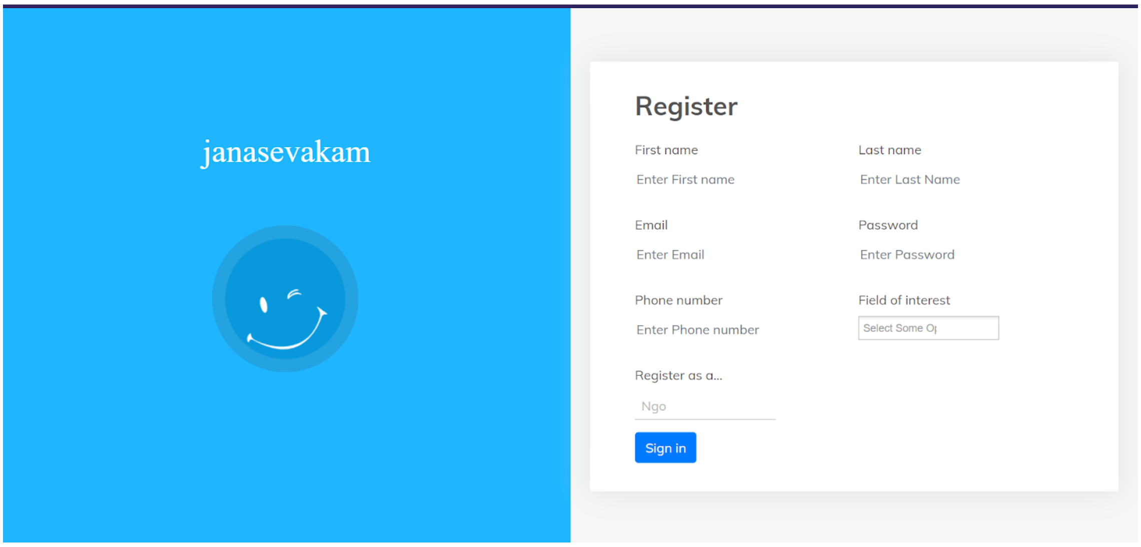
Compatibility testing is used to gauge how an application or piece of software will work in different environments. It is used to check that your product is compatible with multiple operating systems, platforms, browsers, or resolution configurations. The goal is to ensure that your software's functionality is consistently supported across any environment you expect your end-users to be using.

Chapter 7

Result

7.0.1 Registration

First a user needs to register on our website. Two registration options are given on website as ngo or a volunteer. Once that is selected relevant information is asked and the user is registered. Without registration login wont work.



janasevakam

Register

First name

Enter First name

Last name

Enter Last Name

Email

Enter Email

Password

Enter Password

Phone number

Enter Phone number

Field of interest

Select Some O|

Register as a...

Ngo

Figure 7.1: register page

7.0.2 Login

This is a login page a web page or an entry page to a website that requires user identification and authentication, regularly performed by entering a username and password combination. Logins will provide customer access to an entire site or part of a website. The credentials from registration are used here to login.

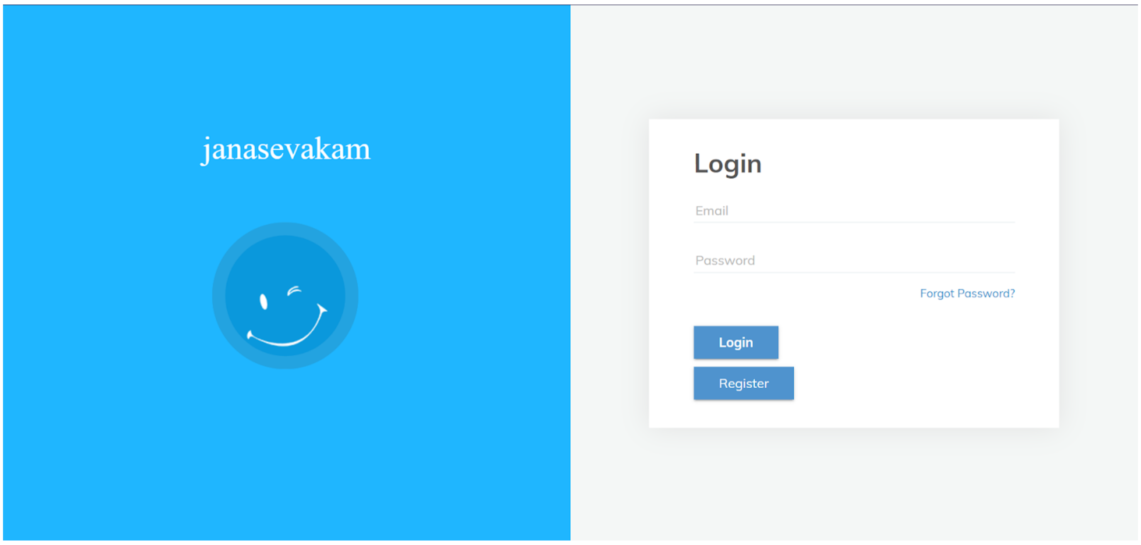
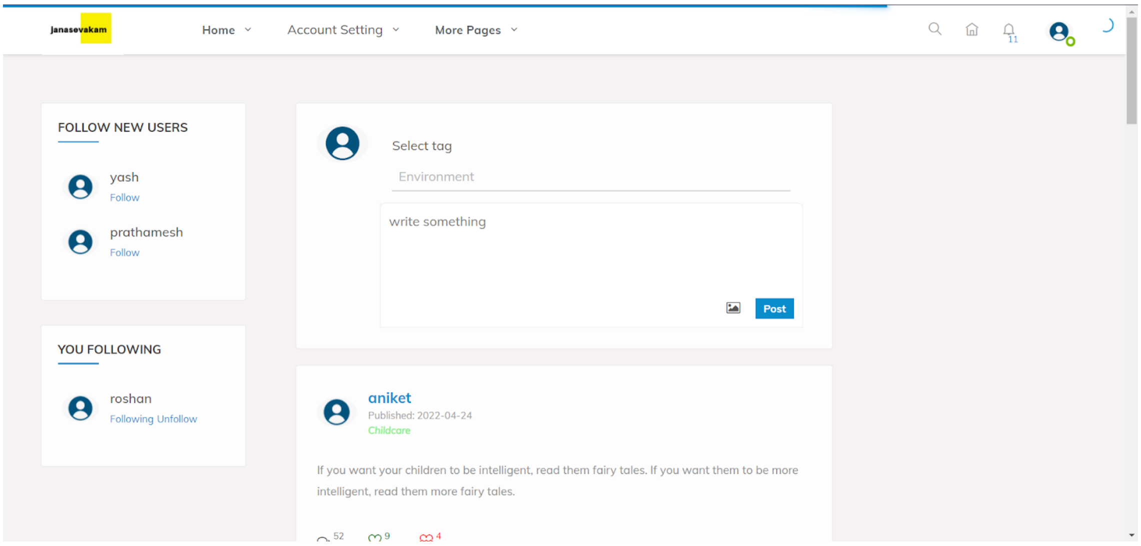


Figure 7.2: login page

7.0.3 Homepage

The Home Page should be user friendly and the navigation panel must be quite visible so that a user can go through the various pages after clicking on the buttons. The Navigation bar should contain all the tabs what our service offers.



yash
Follow

prathamesh
Follow

roshan
Following Unfollow

aniket
Published: 2022-04-24
Childcare

If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales.

Figure 7.3: Home page

Homepage contains feed:

- Feed in the hompage is generated using machine learning.
- It's personalized for every user.
- It is based on previous interactions done by the users.
- It helps in creating better outreach for the post.

7.0.4 Profile

Profile page show all the relevant info about you. It's like a short summary of you. It helps in making it easier for you.

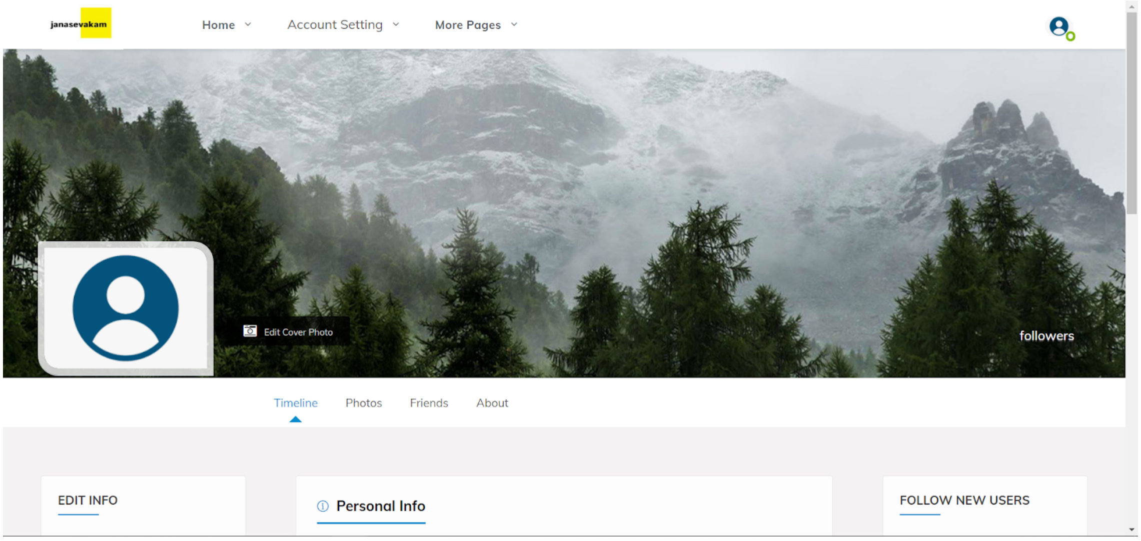


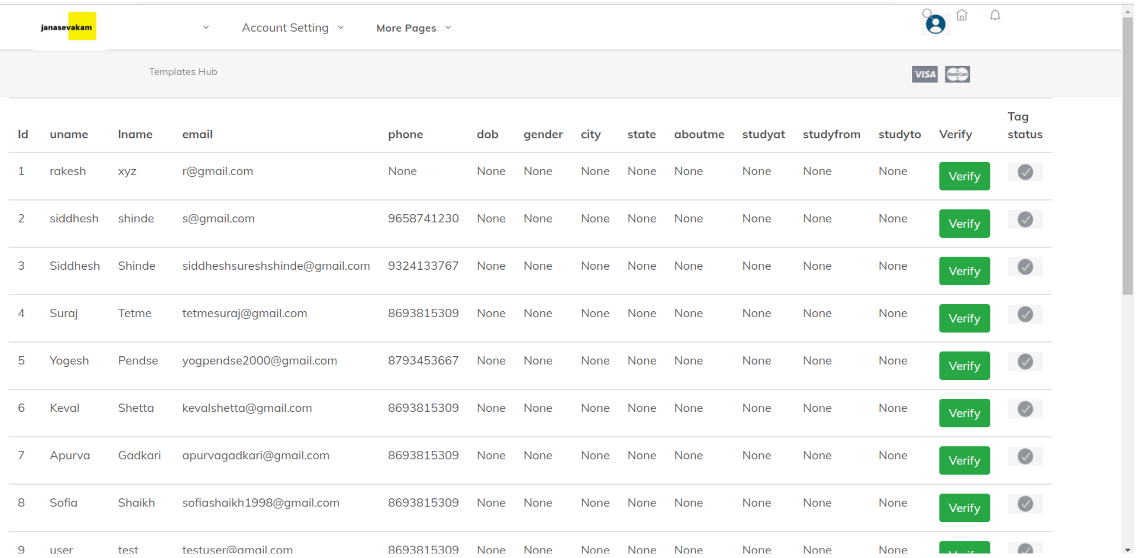
Figure 7.4: Profile page

Some important features on our profile page

- Profile page has a profile photo.
- It has cover image.
- People can see how many people are following you.
- People can see how many people you are following.

7.0.5 Admin panel

Admin page is the page that acts as a guardian for our verification. This verification is done by the admin. Verification badge helps in establishing legitimacy in the eyes of the user. Admin sets verified profile on greater trajectory of reach.



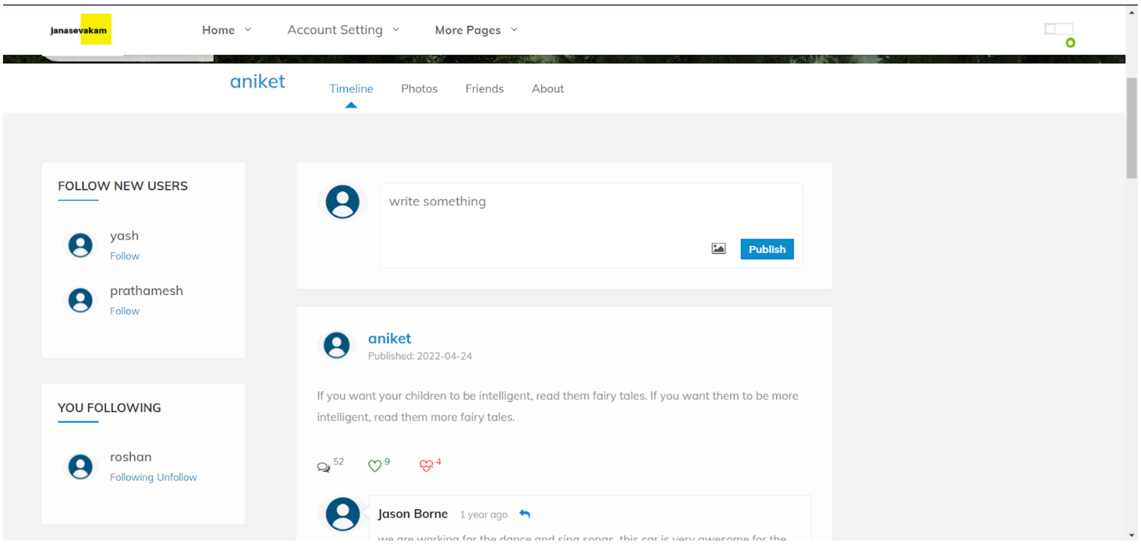
Id	uname	lname	email	phone	dob	gender	city	state	aboutme	studyat	studyfrom	studyto	Verify	Tag status
1	rakesh	xyz	r@gmail.com	None	None	None	None	None	None	None	None	None	Verify	✓
2	siddhesh	shinde	s@gmail.com	9658741230	None	None	None	None	None	None	None	None	Verify	✓
3	Siddhesh	Shinde	siddheshsureshshinde@gmail.com	9324133767	None	None	None	None	None	None	None	None	Verify	✓
4	Suraj	Tetme	tetmesuraj@gmail.com	8693815309	None	None	None	None	None	None	None	None	Verify	✓
5	Yogesh	Pendse	yogpendse2000@gmail.com	8793453667	None	None	None	None	None	None	None	None	Verify	✓
6	Keval	Shetta	kevalshetta@gmail.com	8693815309	None	None	None	None	None	None	None	None	Verify	✓
7	Apurva	Gadkari	apurvagadkari@gmail.com	8693815309	None	None	None	None	None	None	None	None	Verify	✓
8	Sofia	Shaikh	sofiashaikh1998@gmail.com	8693815309	None	None	None	None	None	None	None	None	Verify	✓
9	user	test	testuser@gmail.com	8693815309	None	None	None	None	None	None	None	None	Verify	✓

Figure 7.5: Admin page

Benifits of verification badge

- Greater credibility.
- Reduced fear of impersonation.
- More followers.
- Potential increased engagement.
- Sign of trust from website.
- Increasing brand awareness

7.0.6 Friends and Following



aniket
Published: 2022-04-24

If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales.

Jason Borne 1 year ago

we are working for the dance and sing songs, this car is very awesome for the

Figure 7.6: Certificate with preview

Followers

- Other people can follow you on website.
- Followers are people who'll see your post and help in contributing to work.
- They'll see your posts on your timeline whenever they log in to our website.

Following

- You can follow other people on our website.
- You'll see their posts on their timeline whenever you log in to our website.
- You can help in contributing to their posts if you want.

7.0.7 Certificate with preview

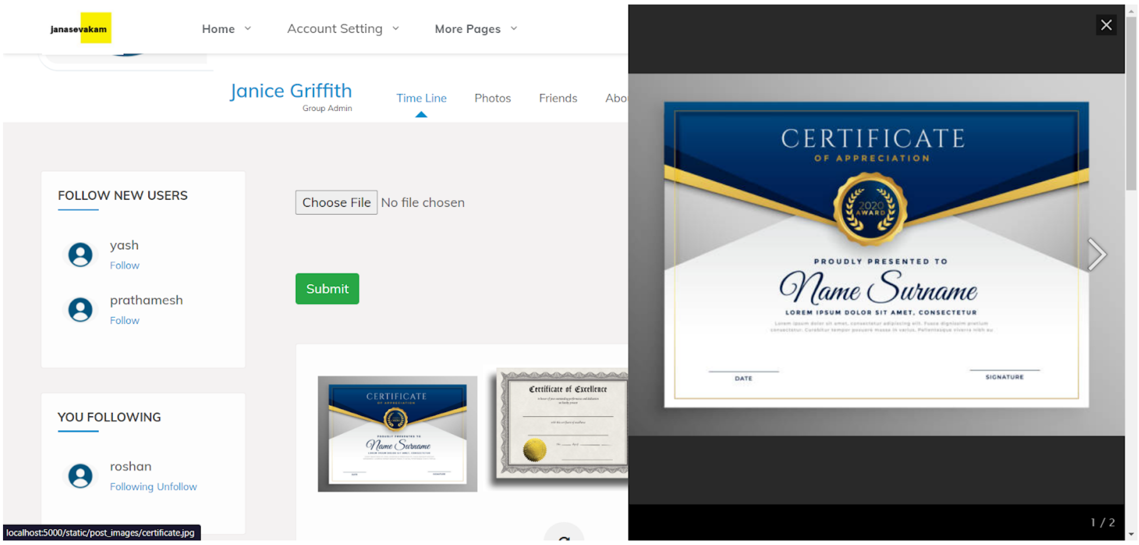


Figure 7.7: Profile page

Certificates

These are proof of service to show other people your contribution to society. If people see one person doing something other will follow. Other people can see your certificates Showcasing your good will help in creating cycle of kindness.

Chapter 8

Conclusions and Future Scope

In our web-app personalized post or feed recommendation is achieved using SVD(Singular Value Decomposition) machine learning algorithm which will in turn better the user experience,the admin portal in our web app will provide our users with verification badge.
This system harness the power and scale of technology to increase the collaboration among NGOs and volunteers, the machine learning algorithm helps in increasing the reach of social work to all potentially available users,
Currently in our admin portal only processes and issues verification badges,in the future it will be able to exercises more regulatory action on our web-app like suspending users engaged in illicit or fraud activities,in the near future it can accept donations with integrated donation gateway.
Apart from this in the future our web-app can issue integrated certificates to individual users for social activities.

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- "NGO CONNECT" by SnehalChaudhari,SnehaDighe, Rucha Desai, SofiyaMulla, Yugchhaya Dhote (2017).

Appendices

Appendix A : Tools

- **python** : https://www.python.org
- **vscode** : https://code.visualstudio.com
- **Anaconda** : https://www.anaconda.com/products/distribution
- **Bootstrap** : https://getbootstrap.com
- **Flask** : https://flask.palletsprojects.com/

Appendix B : Documentation

- **python** : https://www.python.org/doc/
- **vscode** : https://code.visualstudio.com/docs
- **Anaconda** : https://www.anaconda.com
- **Bootstrap** : https://getbootstrap.com/docs/5.1/getting-started/introduction/
- **Flask** : https://flask.palletsprojects.com/en/2.1.x/quickstart/

Appendix C : Dependencies

- **scikit-learn** : https://scikit-learn.org/stable/
- **numpy** : https://numpy.org
- **Pandas** : https://pandas.pydata.org
- **PyMySQL** : https://pymysql.readthedocs.io/en/latest/

Publication

Currently under process