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“COMMUNITY FORUM APPLICATION”

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Abstract— Many community admins are using Facebook groups and Slack software to communicate with community members. Unfortunately, such messaging tools cannot provide a meaningful connection to a society's members. For this reason, the development of community applications is becoming more popular in recent years. A society-based app is the best alternative to social networks, where instead of feeling engaged, users feel even more lonely than offline. This project is aimed at developing online forum for the group discussion. This is an Android application. Any user can post the doubts, topics and can reply for the other user doubts. The user can invites others for Discussion and submit query. This is useful for any general community like technical, sports, educational or for a small office, school or a department or for that matter any group who is interested to organize it effectively. Facility to share the resource and post articles that can be viewed by registered user. This community-based application provides the platform under one roof to interact with different members which maybe the experts in a particular field or a normal employee for seeking or to give advices. An online space on which anybody can have discussions regarding any research, academic documents or any latest technology free of cost.

Keywords—Community forum, CNN, Sensitive information, online communities

I. INTRODUCTION

This android Application will be created for general Community people helping them to communicate with their people. Share their thought as well share different news happening nearby so the every people can have aware of it in community. Also, this application keeps the users updated to the daily community news or events, allows to connect with community people, free business directory and jobs are also available.

To become our best selves, we don't need much. Such simple things as love, support, and the ability to feel empowered, help us live a healthy and happy life. In contrast, the inability to feel connected, loneliness, and feeling like an outsider make us sad and damage our health by causing chronic diseases. Especially now, when the pandemic has limited our social interactions, loneliness has become even dangerous, slowly killing us from the inside. So, how can we leverage technologies to battle loneliness?

The solution is in online communities. Many community admins are using Facebook groups and Slack software to communicate with community members. Unfortunately, such messaging tools cannot provide a meaningful connection to a society's members. For this reason, the development of community applications is becoming more popular in recent years. A society-based app is the best alternative to social networks, where instead of feeling engaged, users feel even more lonely than offline.

Community applications serve online communities, a group of people with similar interests, values, and beliefs to help them engage socially. An application for community is the place where people can create and upload multimedia content, share it with other members, discuss topics in built-in forums, share their ideas, and even run online video events. At the beginning of the 2000s, all such societies existed in web-based forums, where members created threads to discuss something with others. Now, thanks to developed technologies, mobile devices are affordable for anyone. So, you can connect with society members via local community apps. However, there are online communities that still prefer web-based community forum software to mobile apps like,

- GitHub, a professional community for developers to share pre-coded app features, ask questions, and review codes.
- Quora, a question-and-answer website where questions are asked, answered, followed, and edited by Internet users.

- Airbnb, the peer-to-peer network of travelers and hosts, has a dedicated community for hosts to share their experiences..



This Community Forum App provides following features to make better user interface and experience:

- Category wise community selection.
- Report system to control misleading content.
- Restrictions -Admin can remove and add user directly
- Notification alert
- Add to favorite/star
- Events
- Chat
- Media files upload.
- Maps localization to identify the nearest community
- News feed
- User search
- Personality info
- Help desk
- Blogs

Machine learning module to detect sensitive data. So basically, This application will be made for providing a platform for having discussions. This forum provides the platform under one roof to interact with different members which maybe the experts in a particular field or a normal employee for seeking or to give advices. An online space on which anybody can have discussions regarding any research, academic documents or any latest technology free of cost. This is the application, which helps to resolve doubts, queries related to any field by having discussions with other registered users.

II. LITERATURE SURVEY

An application for community is the place where people can create and upload multimedia content, share it with other members, discuss topics in built-in forums, share their ideas, and even run online video events.

People prefer the app community to social networks for the following reasons:

- Lack of necessary functionality
- Questionable user data privacy
- Mistrust in social network politics

At the beginning of the 2000s, all such societies existed in web based forums, where members created threads to discuss something with others. Now, thanks to developed technologies, mobile devices are affordable for anyone. So, you can connect with society members via local community apps. However, there are online communities that still prefer web based community forum software to mobile apps.

Examples include:

- **GitHub:** a professional community for developers to share pre-coded app features, ask questions, and review codes.

- **Quora:** a question-and-answer website where questions are asked, answered, followed, and edited by Internet users.
- **Airbnb:** the peer-to-peer network of travelers and hosts, has a dedicated community for hosts to share their experiences.

Community-based mobile application has the following benefits:

- **Build loyalty:** Brands develop community applications because it is a proven way to build loyalty, engage with more potential customers, promote products, and run marketing campaigns.
- **Stay connected:** Neighbors who live in the same area use apps for neighborhoods to bridge the communication gap. With a neighborhood communication app, they can plan and organize social activities, raise funds, and share their news with neighbors.
- **Receive advice:** Professionals use community applications to find reliable business service providers, keep track of current trends and events, ask for career advice from industry leaders, and share compelling cases from their work.
- **Learning new things:** Students access online courses in education community apps, get new knowledge, and dig deeper into one particular topic.

Drawbacks of Community based application available in market:

- Limited Scope.
- High cost of subscription.
- No control over user data.

III. PROPOSED SYSTEM

A. Problem Statement: Many community admins are using Facebook groups and Slack software to communicate with community members. Unfortunately, such messaging tools cannot provide a meaningful connection to a society's members. For this reason, the development of community applications is becoming more popular in recent years. A society-based app is the best alternative to social networks, where instead of feeling engaged, users feel even more lonely than offline.

B. Why there is need?

Why do people create community applications? If you can create a community in a Facebook group, why build online community apps?

People prefer the app community to social networks for the following reasons:

- Lack of necessary functionality
- Questionable user data privacy
- Mistrust in social network politics

One example is Facebook, which has been criticized for selling users' data to third parties, applying face recognition without users' permission, and denying location privacy representing significant setbacks for civil rights. Also, Don't forget about fake news and interference in governmental elections with political ads.

C. Objective:

- To bring people and their ideologies together.
- To provide them daily news and community events.

- To help the users to communicate and grow their business.
- To chat with your community people through groups.

D. Scope: Various updates can be performed in this application in coming future. This community based application will result in minimizing the gap amongst different users. This forum gives a platform which results in an easy way of communication amongst different people from different areas.

Drawbacks of Community based application available in market:

- Limited Scope.
- High cost of subscription.
- No control over user data.

E. Motivation: There are many community-based applications available in market, but their scope is limited i.e. They are limited to particular field like technical community-based applications are limited to technical field only, same for sports or education-based community. Also, this applications charges high cost for subscription and there is no control over user data, if it is being mistakenly uploaded on internet. That's why we are motivated towards building such kind of application which helps to all people from different area or different field can share there thoughts and give solutions to each other's problems. Also, we are providing machine learning module to protect users sensitive data.

IV. PROJECT DESIGN

A. Introduction: In this chapter, Architectural design documentation of our system is explained. Pictorial forms of any system give a better understanding of the working. Using different flow Models and architecture model elaboration of the flow of the data and control through different path of the system is shown. Project design is the process of defining the elements of a system such as the architecture, modules and components, the different interfaces of those components and the data that goes through that system. It is meant to satisfy specific needs and requirements of a business or organization through the engineering of a coherent and well-running system. It could be seen as the application of systems theory to product development.

B. System architecture: The figure.1 below illustrates how the components of a forums system work together.

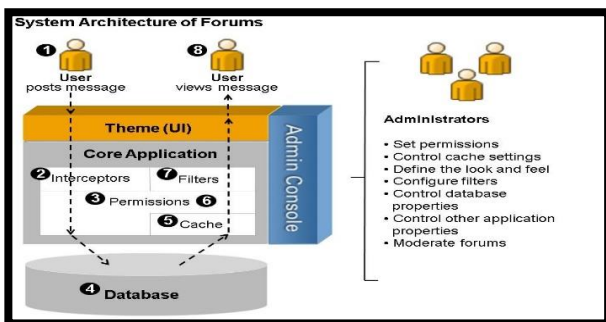


Figure.1 System Architecture

1. A user logs onto a forum and posts a message.
2. The forums application sends the incoming message through special filters, called interceptors. Interceptors screen the message for any content for which you have configured them. The interceptors do one of the following:
 - a. alter and pass on the message
 - b. allow it through unaltered
 - c. reject the message
3. The system applies permissions set at global, category, or forum level to the message.
4. The system saves the message in the database.
5. If a user is trying to view a particular message, the system retrieves this message from the cache or from the database.
6. According to the permissions the system decides whether to display the message to the user.
7. The message passes through filters that dynamically format the message content before it can be viewed by users.
8. The user reads the posted message

C. Block diagram of our machine learning module (For Image processing):

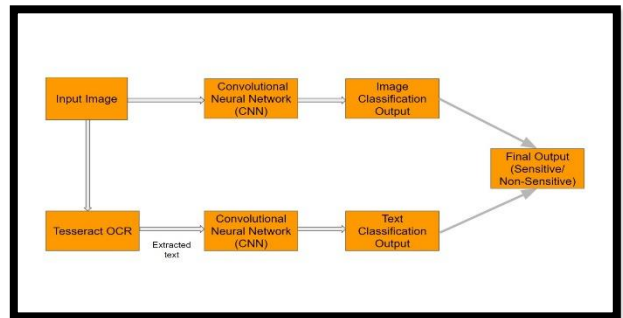


Figure.2 Block diagram of ML module

The input image is fed into the Convolutional Neural Network for image classification. The text in the images will be extracted using Tesseract OCR. The extracted text will be classified using Convolutional Neural Networks. Finally, the output of the image classification and text classification will be fused together to produce the final output. The final output tells the user whether the information in the image is Sensitive (or) Non- sensitive.

D. Data flow Diagram:

A data-flow diagram is a way of representing a flow of data through a process or a system.

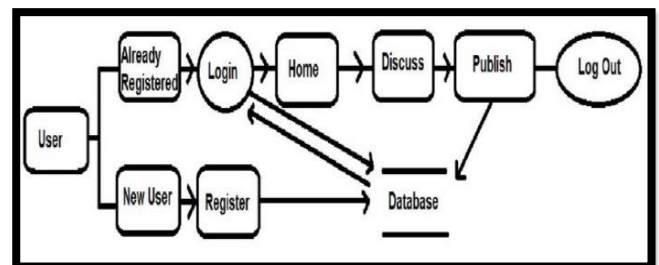


Figure.3 Data flow Diagram

V. DESIGN IMPLEMENTAION

Following figure. 4 shows the actual workflow of our community forum application. it gives the general idea about how the users interact with the application on web

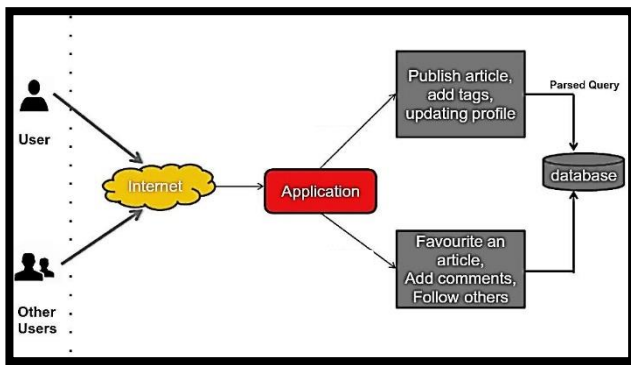


Figure.4 project Architecture

A. Details about Application :

For frontend we will be using XML/JAVA language and we used IDE, Android studio for developing this application. It will contain following features.

a. Features:

- Category wise community selection.
- Report system to control misleading content.
- Restrictions -Admin can remove and add user directly
- Notification alert
- Add to favorite/star
- Events
- Chat
- Media files upload.
- Maps localization to identify the nearest community
- News feed
- User search
- Personality info
- Help desk
- Blogs
- Machine learning module for image processing to detect sensitive data.

b. Backend: If our app handles large amounts of data, most of it probably won't live on your device at any given time. Instead, your app will likely interact with a database living outside of your phone. Cloud services like Firebase or Parse provide simple APIs to store data in the cloud and make it available across devices.

These platforms also often provide Java libraries that you can plug into your app, making it easy to cache some of the data on the user's device. This syncing of data between local storage and the remote database is important if you want to let users use the app when they're offline. Cloudhosted real time document store. iOS, Android, and JavaScript clients share one Realtime Database instance and automatically receive updates with the newest data.

Firebase is one kind of NoSQL database. The Firebase database is just a big JSON object where you can store whatever you want inside.

Firebase is a mobile and web application development platform developed by Firebase, the Firebase platform has 19 products, which are used by more than 1.5 million apps. A primary reason for this different data structure could be driven by the simplicity of design, simpler horizontal scaling to clusters of machines, and more control over availability.

- Firebase's a cloud service also Firebase is a NoSQL database. In Firebase data stored/processed in a cloud.

- Firebase is suitable for real-time applications.
- Firebase is only available on GCP (Google Cloud Platform). It is owned by Google.
- In Firebase any key/field can be added easily without affecting the existing design.

c. Admin panel: The database will be managed by the admin using the admin panel. Admin will manage the every data inside the database.

B. Implementation of ML (Machine learning) Module:

We are implementing machine Learning Model in our community forum application to detect if the images contain sensitive data or not, thereby protecting the exposure or loss of private and sensitive information.

Unfortunately, people knowingly or unknowingly upload images containing sensitive data like:

Username and Passwords –

- Credit card or Payment Card Information (PCI)
- Personally Identifiable Information (PII)
 - E-mail Addresses
 - Phone Numbers
 - Social Security Numbers
 - Aadhar Numbers
- Protected Health Information (PHI)
- Customer's data
- Student's data

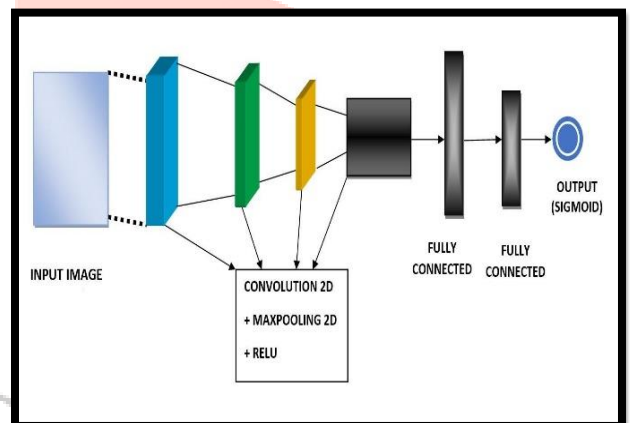


Figure.5 Image Classification Model

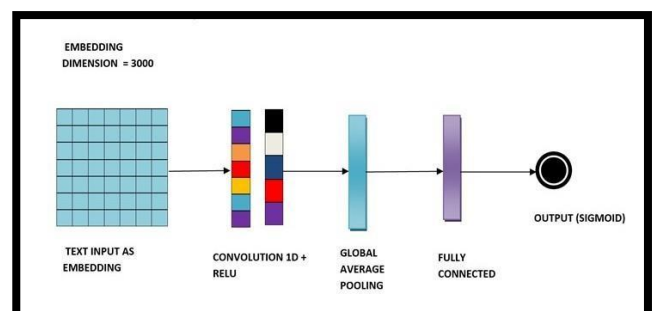
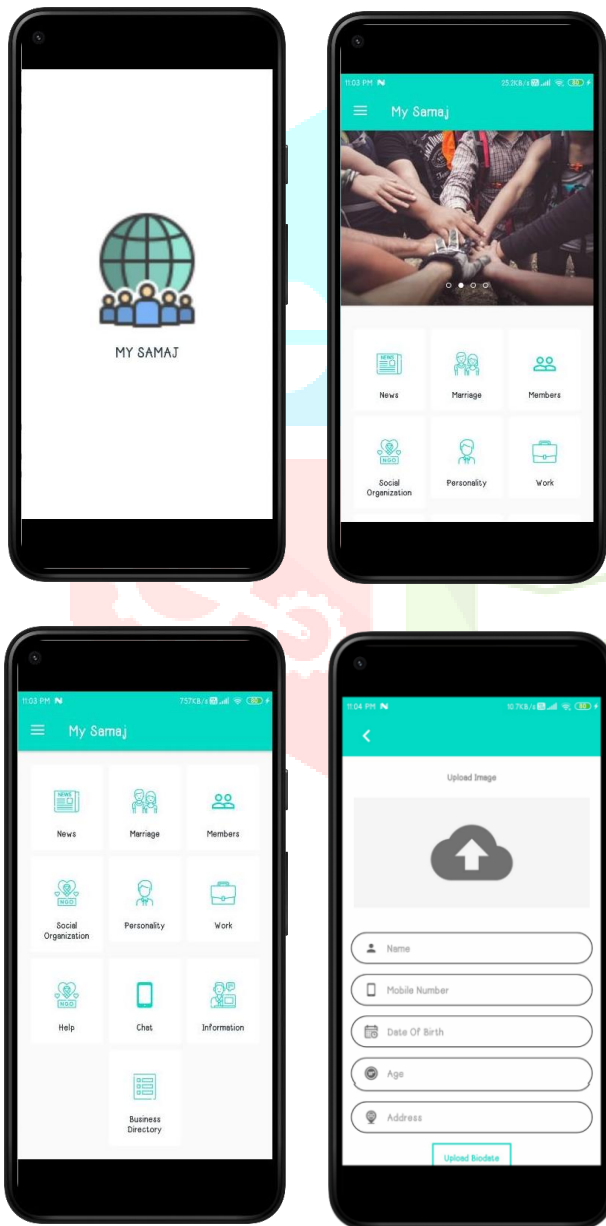


Figure.6 Text Classification Model

Loss, misuse, modification, or unauthorized access to sensitive information can adversely affect the privacy or welfare of an individual, trade secrets of a business or even the security and international relations of a nation depending on the level of sensitivity and nature of the information. So, we are designing a machine learning system that classifies the data in the images as sensitive or non-sensitive.

VI. RESULT AND DISCUSSION

So basically, to use this application user first needs to register on it, at the time of registration, the basic details of the user will be stored in a database for user authentication purposes. After successful registration, different categories of the community will be shown to the user, this categories includes news, marriage, members, social organization, personality, work, help, chat, information, and business directory-related category which is shown in the following screens. Each of these categories has its own functionality. whenever we upload any multimedia image in this application at that time our machine learning module comes in to picture, which is capable to process the input image and gives pop-up result to the user as it is sensitive or not. In this way, it also protects user-sensitive data before it is being uploaded on social media.



VII. CONCLUSION AND FUTURE SCOPE

A. Conclusion: This Forum application can easily support any Android device. This application serve online communities, a group of people with similar interests, values, and beliefs to help them engage socially. Also this application helps people to reduce lot of efforts and time to solve any day to day life problems or queries by referring suggestions posted by the expert persons.

B. Future scope: Various updates can be performed in this application in coming future. This community based application will result in minimizing the gap amongst different users. This forum gives a platform which results in an easy way of communication amongst different people from different areas.

VIII. REFERENCES

- [1] Xiaosheng Yu, Cai Yi, "Design and Implementation of the website based on PHP and MySQL" College of Computer and Information Technology China Three Gorges University Yichang (2016).
- [2] Wei Jiang, Meng Zhang, Bin Zhou, Yujian Jiang, Yingwei Zhang, "Responsive Web Design Mode and Application" (2016).
- [3] ZhangShuMing, "Design and Implementation of Responsive Web Design", Computer and Modernization, vol. 6, (2013).1999.
- [4] Balaji M. S, Charkrabarti D, "Student Interactions in Online Discussion Forum: Empirical Research from 'Media Richness Theory' Perspective", IBS Hyderabad, IFHE University, Hyderabad, India. Journal of interactive online learning, Vol 9, No 1, 2010
- [5] Edwards J, "A Short History of Online Discussion Groups", Publication of James Madison University Libraries, 2005.