



**MAHARASHTRA EDUCATION SOCIETY'S  
ABASAHEB GARWARE COLLEGE, PUNE.**

**M.Sc. (Computer Science)**

**A Project Report**

**on**

**Smart Village**

**Android Application**

Submitted By

**Mr. Akshay Shantaram Pansare**

**Mr. Rushikesh Nanasaheb Bodkhe**

**Ms. Aarti Subhash Wakchaure**

**Ms. Tejaswini Dhondibhau Gorde**

Guided By

**Mrs. Madhuri Khadatare**

**DURING ACADEMIC YEAR**

**2022-23**



MAHARASHTRA EDUCATION SOCIETY'S  
(SINCE 1860)

## ABASAHEB GARWARE COLLEGE

Karve Road, Deccan Gymkhana, Pune – 411 004, Maharashtra, India Ph.: 020 41038200  
E-mail: abasahebgarwarecollege@gmail.com www.mesgarwarecollege.org



**Prof. (Dr.) P.B. Buchade**  
M.Sc. M.Phil. Ph.D.  
**Principal**

- NAAC Re-accredited – 'A' Grade
- Best College Award – Savitribai Phule Pune University

LD. No: PU/PN/C/009 (1945) / JR. COLLEGE CODE: 11.11.003  
AISHE CODE: C-41477-2018

Ref. No.:

Date:

### Department of Computer Science

This is to certify that a team of students,

Akshay Shantaram Pansare (15644)

Rushikesh Nanasaheb Bodkhe (15606)

Tejaswini Dhondibhau Gorde (15662)

Aarti Subhash Wakchaure (15658)

has successfully completed a project work as a part of SEM III,

M. Sc. (Computer Science) Part II course under the guidance of

Mrs. Madhuri Khadatare in the

academic year 2022-23.

Project Title: Smart Village Android Application.

Project Guide

Head

Internal Examiner

External Examiner

## ACKNOWLEDGEMENT

Although we have put in our best effort to complete this project, there are people who have helped us all the way long. We acknowledge with sincere gratitude all those who have helped us to make this project a success. For their constant and unending guidance and support throughout the project. We sincerely thank our project guides.

We would like to thank **Mrs. Madhuri Khadatare** Her advice and support encouraged us to strive for the best.

We extend our heart full gratitude to our **HOD Mrs. Chitra Nagarkar** for her much-needed untiring efforts and co-operation with us. They were always willing to solve our difficulties.

Last but not the least a very special thanks to our friends who always had a helping hand whenever needed and also for their co-operation and moral support for doing this project.

We are very grateful and thankful to them.

# Index

<b>Sr. no.</b>	<b>Title</b>	<b>Page no.</b>
<b>1</b>	<b>Introduction</b>	5
<b>2</b>	<b>Objective</b>	6
<b>3</b>	<b>Scope</b>	7
<b>2</b>	<b>Proposed System</b>	8
<b>3</b>	<b>Feasibility Study</b> 1. Technical Feasibility 2. Operational Feasibility 3. Economical Feasibility	9
<b>4</b>	<b>System Requirements</b> 1. Developing Environment Requirements 2. Deployment Environment Requirements	10
<b>6</b>	<b>Design Phase</b> 1. ER Diagram (Admin & User) 2. UML Diagrams <ul style="list-style-type: none"><li>• Class diagram</li><li>• Use Case diagram</li><li>• Activity diagram</li></ul>	12
<b>7</b>	<b>Data Dictionary</b>	17
<b>8</b>	<b>Screenshots</b>	19
<b>9</b>	<b>Limitations</b>	31
<b>10</b>	<b>Future Enhancement</b>	32
<b>11</b>	<b>Conclusion</b>	33
<b>12</b>	<b>Bibliography</b>	34

# INTRODUCTION

Smart Village is a Android application which provides information about village and government schemes. The main objective of this project is to build an application program to reduce the manual work of villagers(user). The basic concept the application is to allow villagers to upload informative posts which helpful to other users.

This Android coded project has been designed in a way that is easy to understand by the user. The main motive of this project was to ease the people to get fully updated about his/her village, also take the benefits of the government schemes.

The project consists of the android codes and firebase. This has basically two modules Admin and User. The admin holds the power to control the application. The admin can add, update, edit, delete the user posts, news, doctor details and government schemes. The user is the person who can use smart village application to take the benefits of government schemes and he/she himself/herself will updated about the village.

## **OBJECTIVE**

The Smart Village is online application's major goal is to manage the details of news, posts, doctors and government schemes. It keeps the track of all information of users, doctors etc.

The main objective of this project is to build an application program to reduce the manual work of villagers(user). The basic concept the application is to allow villagers to upload informative posts which helpful to other users.

## SCOPE

- Villagers can share the useful information to other application users so that the other people should be updated about the village.
- Admin can share the important event details through the posts.
- Admin can verify the government scheme after verifying he will share the details of the scheme on Smart Village application.
- Admin can upload the government schemes with details like starting date to apply end date of the application how to apply description of the scheme also the apply link into the application, so that user(villagers) can take the benefits of the schemes.
- User can easily apply to the government schemes.
- User can directly call to doctors using the doctor section and doctors degree verify by the admin when the doctor details verify then admin will add doctor details on the application.

## **PROPOSED SYSTEM**

- The main objective of the project is to design and develop a user-friendly application.
- Easy to use.
- To provide better Graphical User Interface (GUI)
- To develop an accurate and flexible application, it will eliminate data redundancy.
- To provide a complete security.
- Less chance of information leakage.



# FEASIBILITY STUDY

While designing any application first step is to study requirement analysis it is done through three feasibility study:

- 1) Technical Feasibility.
- 2) Economic Feasibility.
- 3) Operational Feasibility.

## **1) TECHNICAL FEASIBILITY : -**

- Technical feasibility centers around the technology used. It means the candidate system is technically feasible i.e. it don't have any technical fault and work properly in the given environment. Our system is technically feasible; it is providing us required output.

## **2) ECONOMIC FEASIBILITY : -**

- Economic analysis is the most frequently used method for evaluating the effectiveness of the candidate system. We analyse the candidate system (computerized system) is feasible as than the manual system because it saves the money, time and manpower. It also feasible according to cost benefits analysis.

## **3) OPERATIONAL FEASIBILITY : -**

- Behavioral feasibility is the analysis of behavior of the candidate system. In this we analyzed that the candidate system is working properly or not. If working than it communicating proper with the environment or not. All this matters are analyzed and a good candidate system is prepared. Due to the change of system what is the change in behavior of the users, this factors are also analysed.

# SYSTEM REQUIREMENTS

Technologies and tools in Smart Village Application are as follows:

## **Developing Environment Requirements:**

The environment requirement consists of two requirements as follows for this application

### **1. Hardware Requirement:**

- Processor: Core i5 and above
- RAM: 8GB and above
- System Type: 64 bit, X64-based processor

### **2. Software Requirement:**

- Operating System: Windows 10 and above
- Android Studio
- JDK
- Firebase Database

## **Deployment Environment Requirements:**

### **1. Hardware Requirement:**

- Android Smart Phones, Tablet.
- Internet Connectivity.

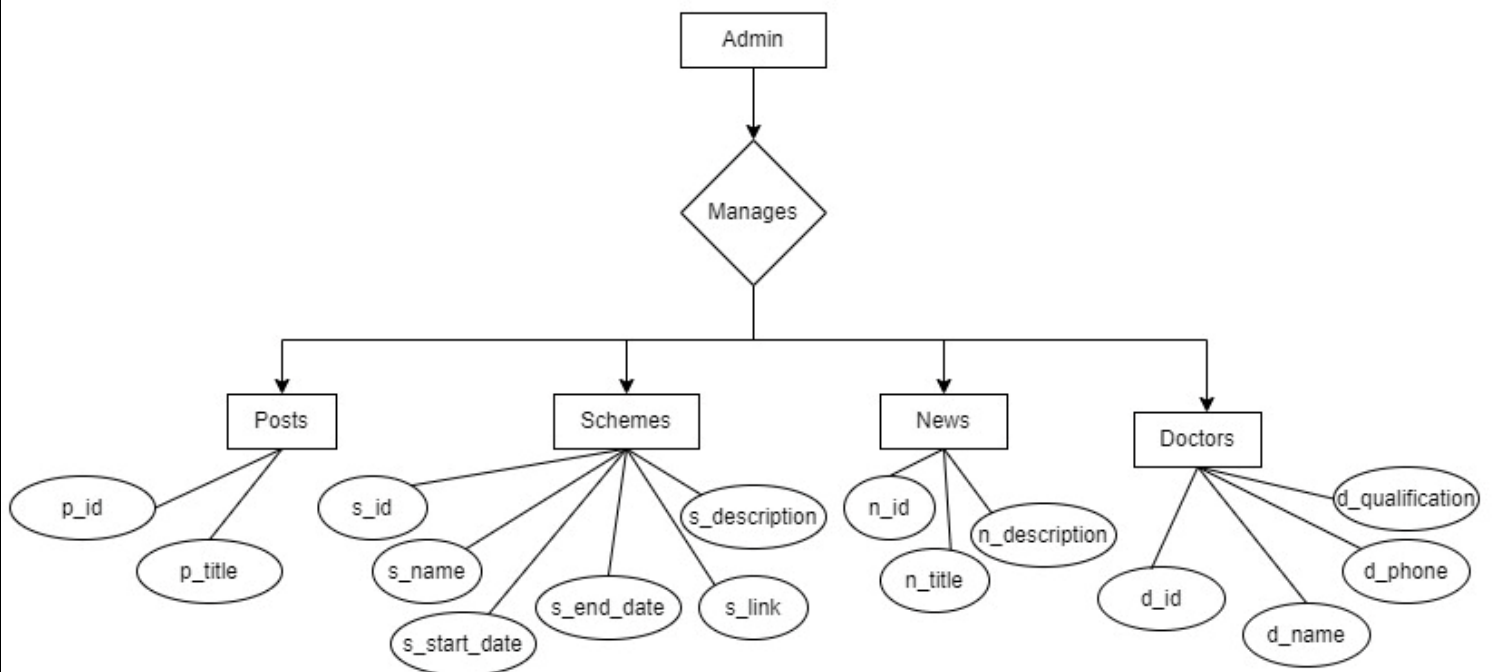
### **2. Software Requirement:**

- Android Operating System
- Android version 5 and above

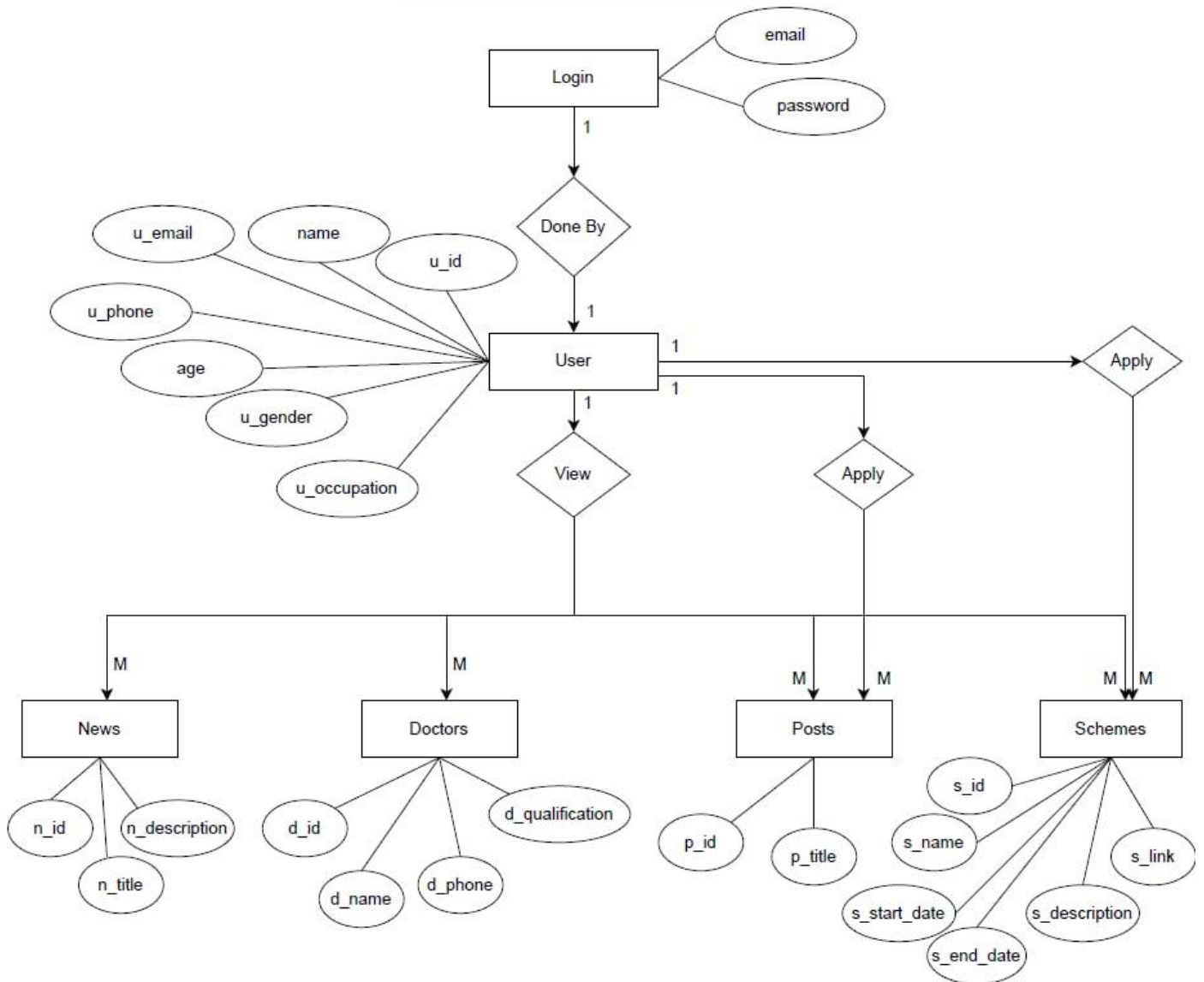
# DESIGN PHASE

## ENTITY RELATIONSHIP DIAGRAM

### 1.ADMIN

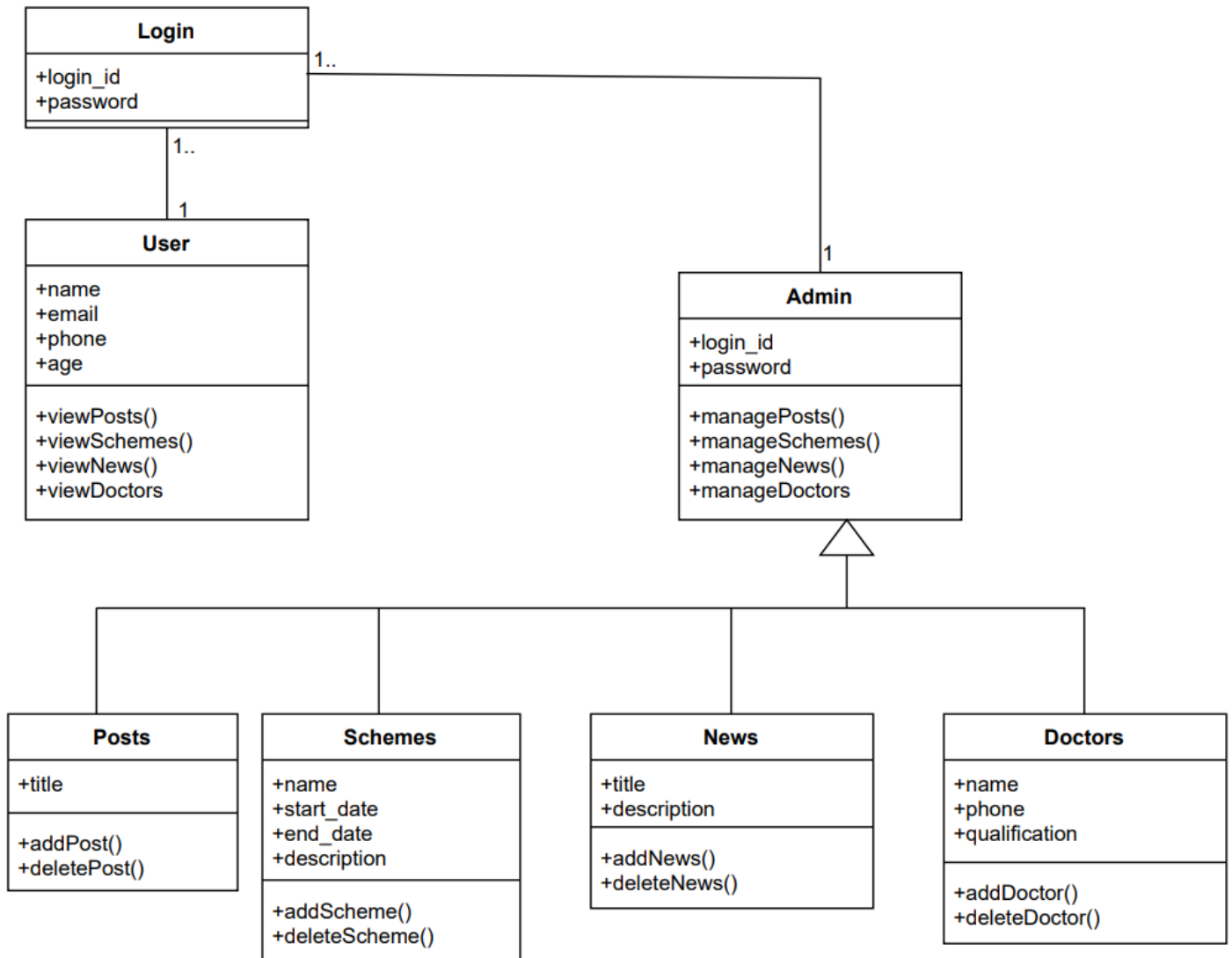


## 2.USER

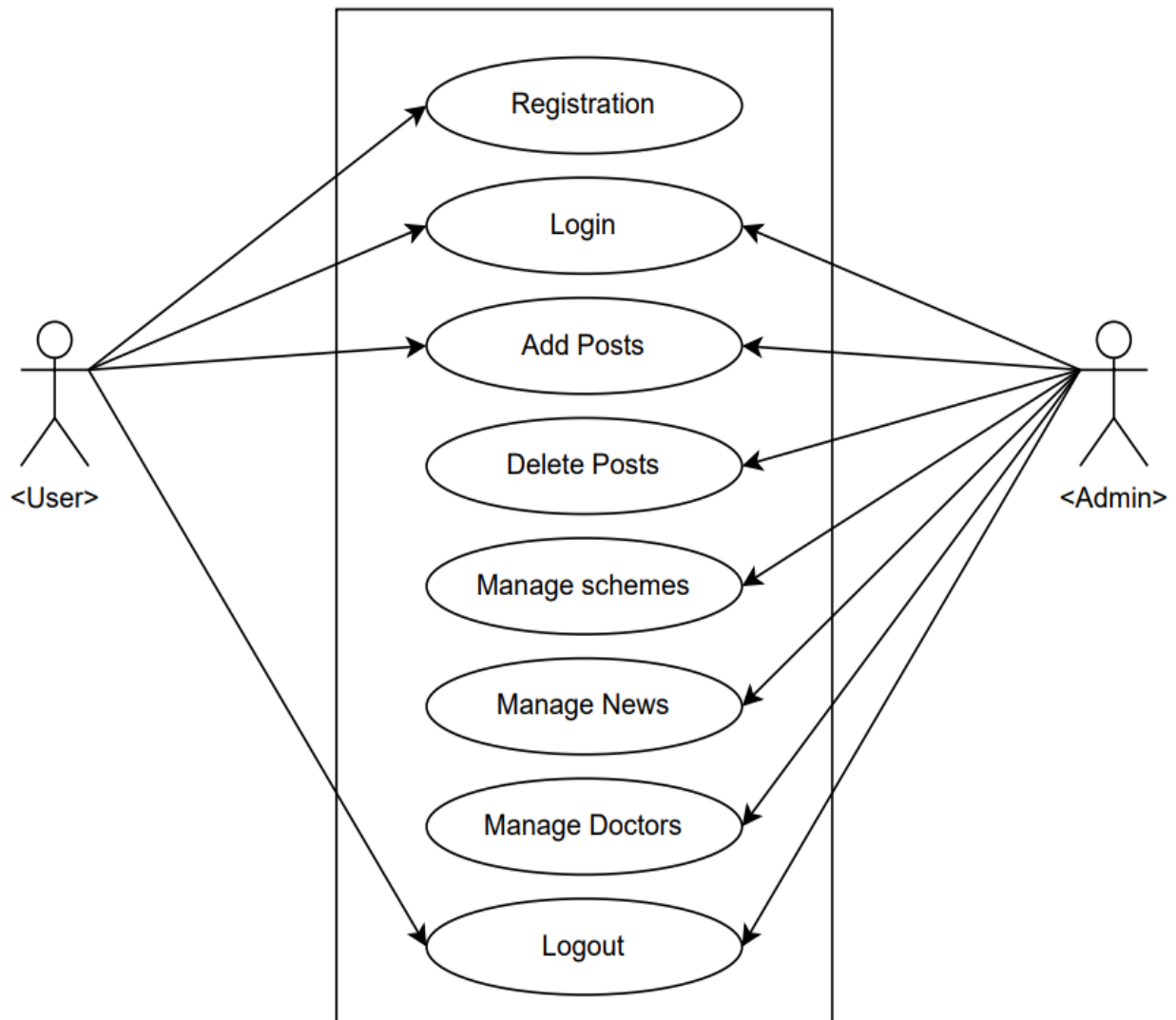


# UML DIAGRAMS

## 1. CLASS DIAGRAM

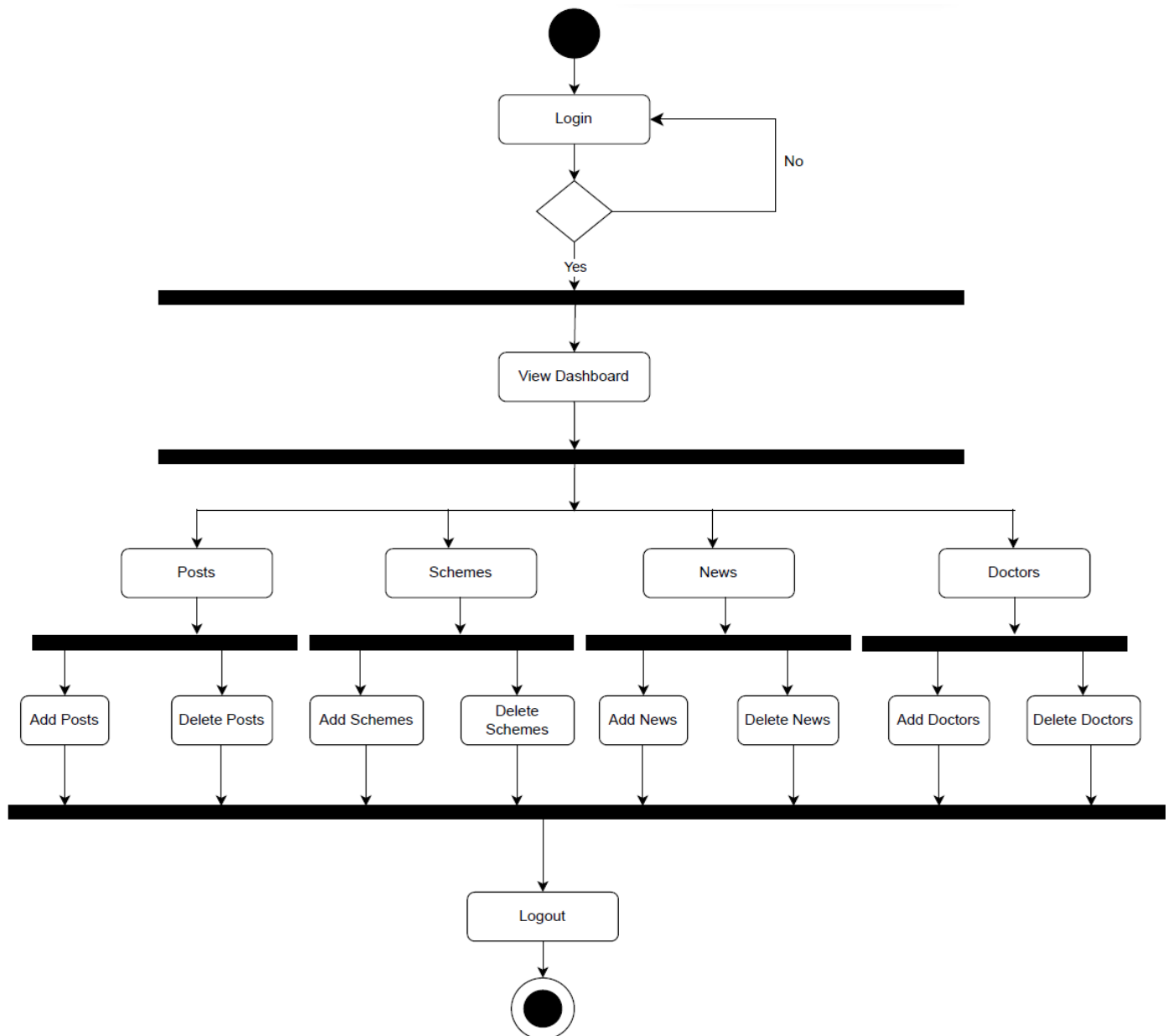


## 2. USE CASE DIAGRAM (ADMIN AND USER)



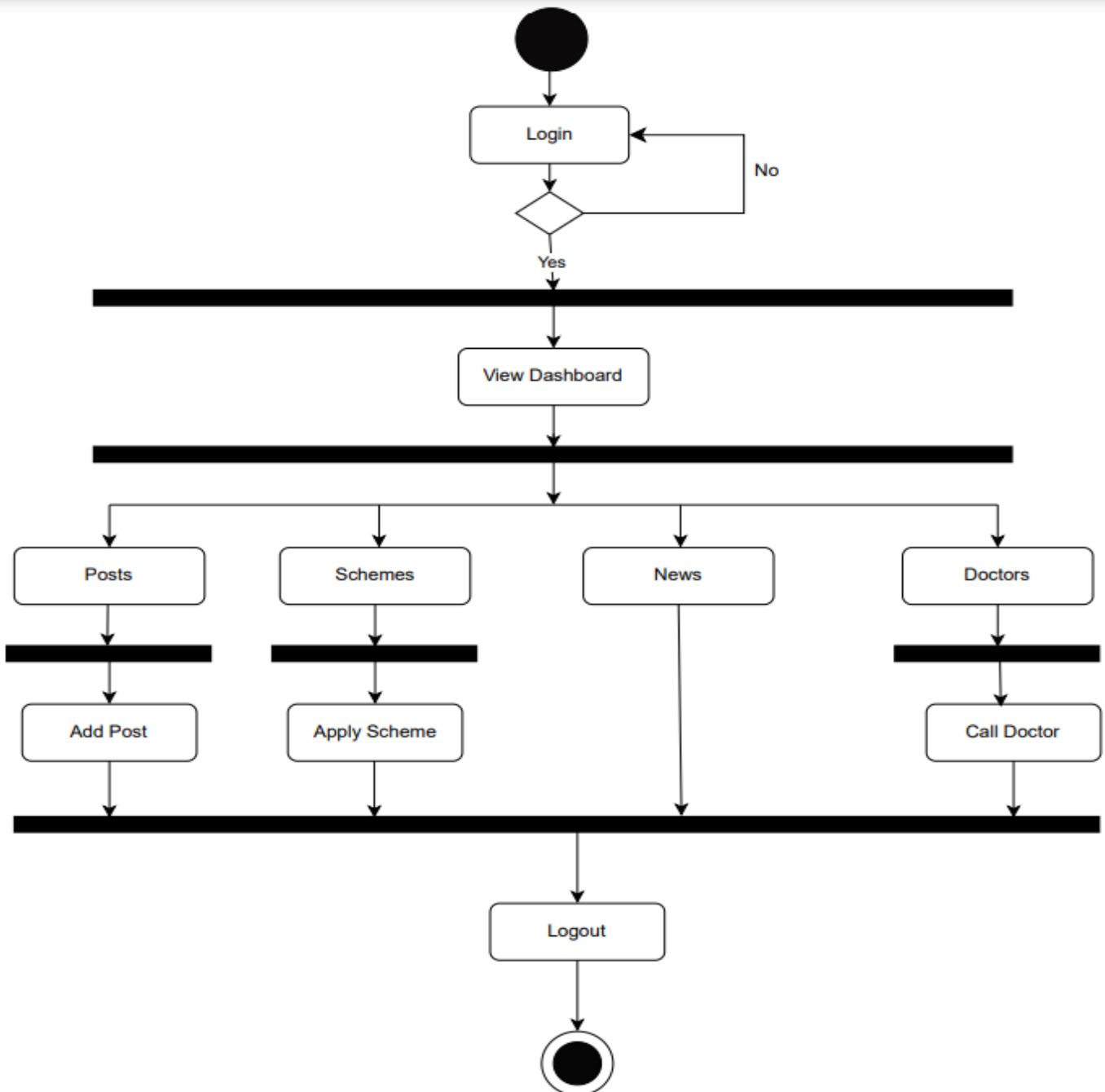
### 3.ACTIVITY DIAGRAM

**Admin:**





**User:**



# Data Dictionary

11:21 M



Your security rules are defined as public, so anyone can steal, modify or delete data in your database

[Learn more](#)

[Dismiss](#)

https://smartvillage-26bb9-default-rtdb.firebaseio.com/

## Doctors

### MBBS

#### -NJM2940hDCEXPqENkc

image: "https://firebasestorage.googleapis.com/v0/b/smartvillage-26bb9.firebaseio.com/o/doctor.jpg?alt=media&key=firebase"   
key: "-NJM2940hDCEXPqENkc"   
mobileNumber: "8605858399"   
name: "Dr Rushikesh Bodkhe"

#### -NJM2ZU3qrmEKTFFqIZk

## News

### -NJ6fVFWuLyIWpEVnzew

#### -NJGoongKbwv4WruJSjx

date: "14-12-2022"   
description: "आज थोरात गार्डन येथे पाऊसाने खूप कहर घातला. सर्व लोकांना आपला व्यायाम संपादन करा. आज थोरात गार्डन येथे पाऊसाने खूप कहर घातला. सर्व लोकांना आपला व्यायाम संपादन करा."   
image: "https://firebasestorage.googleapis.com/v0/b/smartvillage-26bb9.firebaseio.com/o/doctor.jpg?alt=media&key=firebase"   
key: "-NJGoongKbwv4WruJSjx"   
time: "11:38 PM"   
title: "थोरात गार्डन मध्ये आज पाऊस झाला"

## Posts

### -NJJwoipG8TrollP90sn

date: "15-12-2022"   
image: "https://firebasestorage.googleapis.com/v0/b/smartvillage-26bb9.firebaseio.com/o/doctor.jpg?alt=media&key=firebase"   
key: "-NJJwoipG8TrollP90sn"   
name: "Rushikesh Bodkhe"   
time: "02:12 PM"   
title: "Flipkart PayLater"

### -NJKadxis79Ix6mAhd8R

### -NJKaszzG6LVQG-iloyl

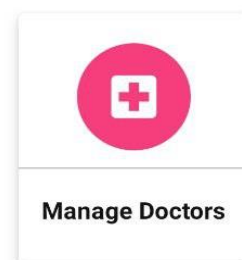
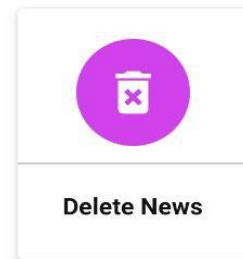
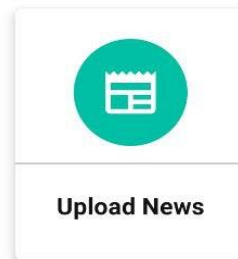
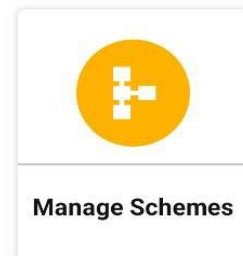
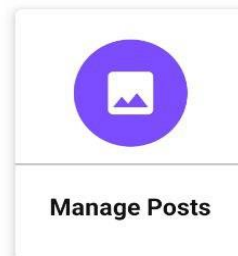
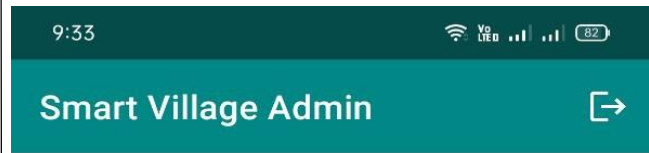
#### -NJPfui2ykWAqHEeXpqD

date: "16-12-2022"   
image: "https://firebasestorage.googleapis.com/v0/b/smartvillage-26bb9.firebaseio.com/o/doctor.jpg?alt=media&key=firebase"   
key: "-NJPfui2ykWAqHEeXpqD"   
name: "Rushikesh Bodkhe"   
time: "04:56 PM"   
title: "#love"

▼ Schemes	
▼ -NJL7ckbNLXy3fpvaybY	<div> <div>date: "15-12-2022"</div> <div>description: "As per ITD guidelines,'Request for New PAN Card or/and Change</div> <div>endDate: "11/03/2022"</div> <div>image: "https://firebasestorage.googleapis.com/v0/b/smartvillage-26bb9.apps</div> <div>key: "-NJL7ckbNLXy3fpvaybY"</div> <div>link: "https://www.onlineservices.nsdl.com/paam/endUserRegisterContact.htm</div> <div>name: "Pan Card Apply"</div> <div>startDate: "11/02/2022"</div> <div>time: "07:44 PM"</div> </div>
▶ -NJMfz2QhFahfzcsvxrD	
▼ -NJNzWeibJVOXT0_R8eA	<div> <div>date: "16-12-2022"</div> <div>description: "प्रधानमंत्री सुरक्षा विमा योजना ही भारतातील सरकार समर्थित अपघात विमा योजन</div> <div>endDate: "-"</div> <div>image: "https://firebasestorage.googleapis.com/v0/b/smartvillage-26bb9.apps</div> <div>key: "-NJNzWeibJVOXT0_R8eA"</div> <div>link: "https://jansuraksha.gov.in/"</div> <div>name: "पंतप्रधान सुरक्षा विमा योजना"</div> <div>startDate: "-"</div> <div>time: "09:03 AM"</div> </div>
▼ Users	
▼ -NJFfpnmIon8FrcN6p-o	<div> <div>age: "22"</div> <div>email: "pansareakshay76@gmail.com"</div> <div>gender: "Male"</div> <div>key: "-NJFfpnmIon8FrcN6p-o"</div> <div>maritalStatus: "Single"</div> <div>mobileNumber: "8530742651"</div> <div>name: "Akshay Pansare "</div> <div>occupation: "Private Service"</div> </div>
▼ -NJHCnbJv6ONOMAbumwR	<div> <div>age: "22"</div> <div>email: "rushikeshbodkhe2@gmail.com"</div> <div>gender: "Male"</div> <div>key: "-NJHCnbJv6ONOMAbumwR"</div> <div>maritalStatus: "Single"</div> <div>mobileNumber: "8605858399"</div> <div>name: "Rushikesh Bodkhe"</div> <div>occupation: "Self Employment"</div> </div>

# SCREENSHOTS

## 1.Admin Application





Village Admin

DELETE

22-12-2022 02:24 PM

Sarpanch



Rushikesh Bodkhe

DELETE

16-12-2022 04:56 PM

#love



Select Image

Post Title

Upload Post



### Animal Husbandry and Dairying

21-12-2022 11:56 am

Delete

Read More



Mission Antyodaya  
Ministry of Rural Development  
Government of India

### Mission Antyodaya

20-12-2022 04:54 pm

Delete

Read More



### पंतप्रधान सुरक्षा विमा योजना

16-12-2022 09:03 AM

Delete

Read More



### प्रधानमंत्री जन धन योजना (PMJDY)

16-12-2022 02:58 AM



Select Image

Scheme Name

Scheme Start Date

Scheme End Date

Scheme Link

Scheme Description

Add Scheme



← About Scheme



## Animal Husbandry and Dairying

21-12-2022 11:56 am

**Start Date :** 1st February 1991

**End Date :** NA

The Department is responsible for matters relating to livestock production, preservation, protection from diseases and improvement of stocks and dairy development, and also for matters relating to Delhi Milk Scheme (DMS) and National Dairy Development Board (NDDB).

← Manage Doctor

### MBBS

Dr. Ameya Ashok Ithape  
9122718737

UPDATE INFO



Dr. Sonal Jhalani  
Khandelwal  
8530742651

UPDATE INFO



### BHMS

Dr. Rahul Baldawa  
7117729912

UPDATE INFO



### BYNS

Dr. Santosh Bangar  
8605858399

UPDATE INFO



10:16



## ← Add Doctor



Doctor Name

Mobile Number

Select Qualification ▼

Add Doctor

11:20



## ← Upload News



Select Image

News Title

News Description

Upload News



9:46



## Delete News



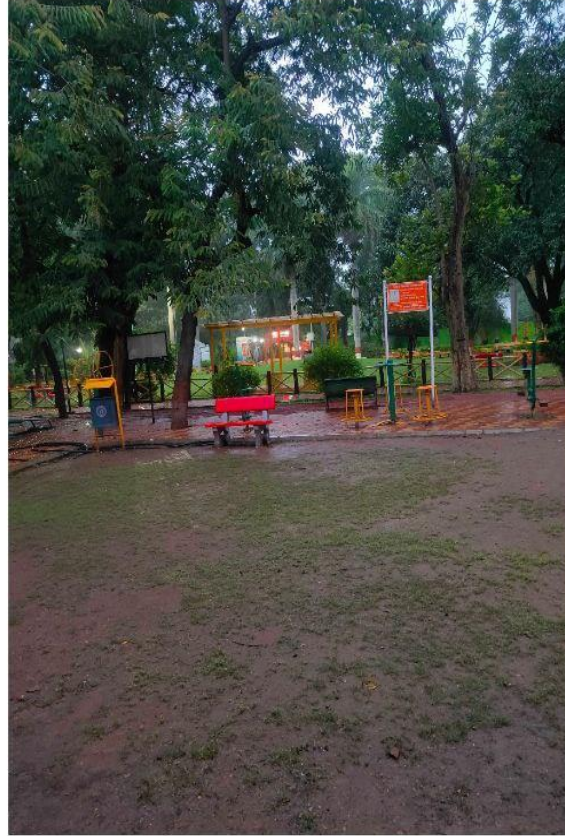
Village Admin

DELETE

14-12-2022 11:38 PM

### थोरात गार्डन मध्ये आज पाऊस झाला

आज थोरात गार्डन येथे पाऊसाने खूप कहर घातला.  
सर्व लोकांना आपला व्यायाम सोडून पळून जावं लागलं.



Village Admin


DELETE

13-12-2022 12:22 AM

### भावपूर्ण श्रद्धांजली

## 2. User Application

11:06



Email

Password

**LOGIN**

[Forgot Password?](#)

[New User? Register Now](#)

11:06

← **Registration**

**Here's your first step with us!**

Name \*

Email \*

Mobile Number \*

Password \*

Confirm Password \*

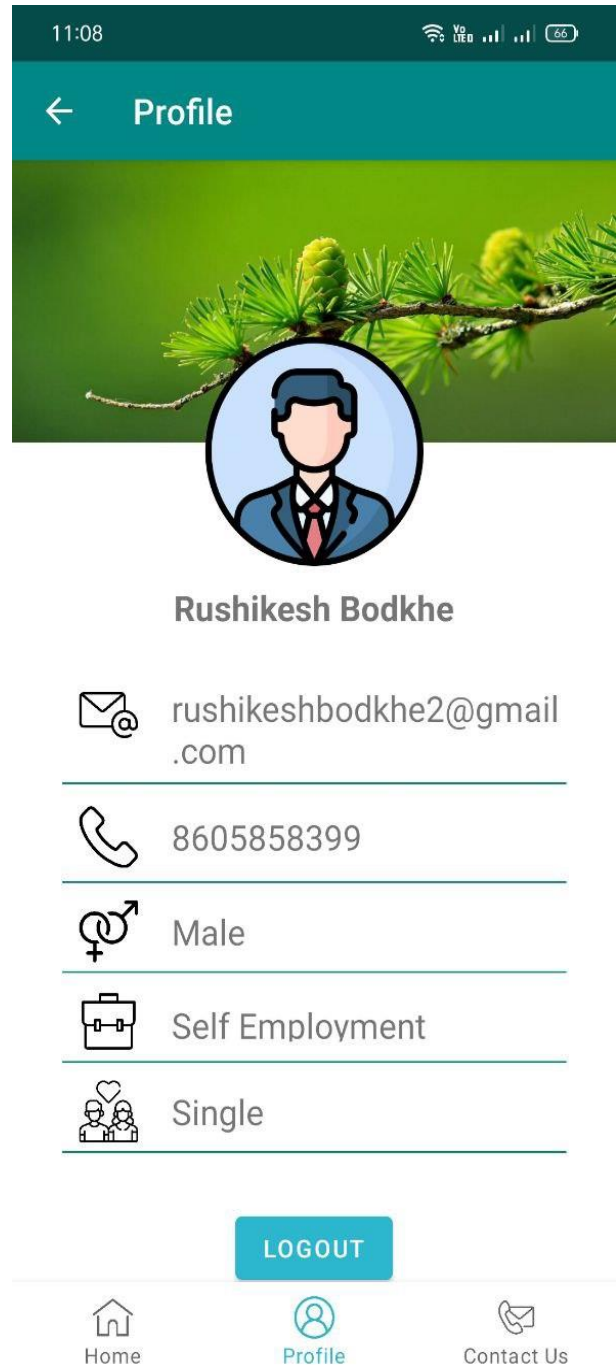
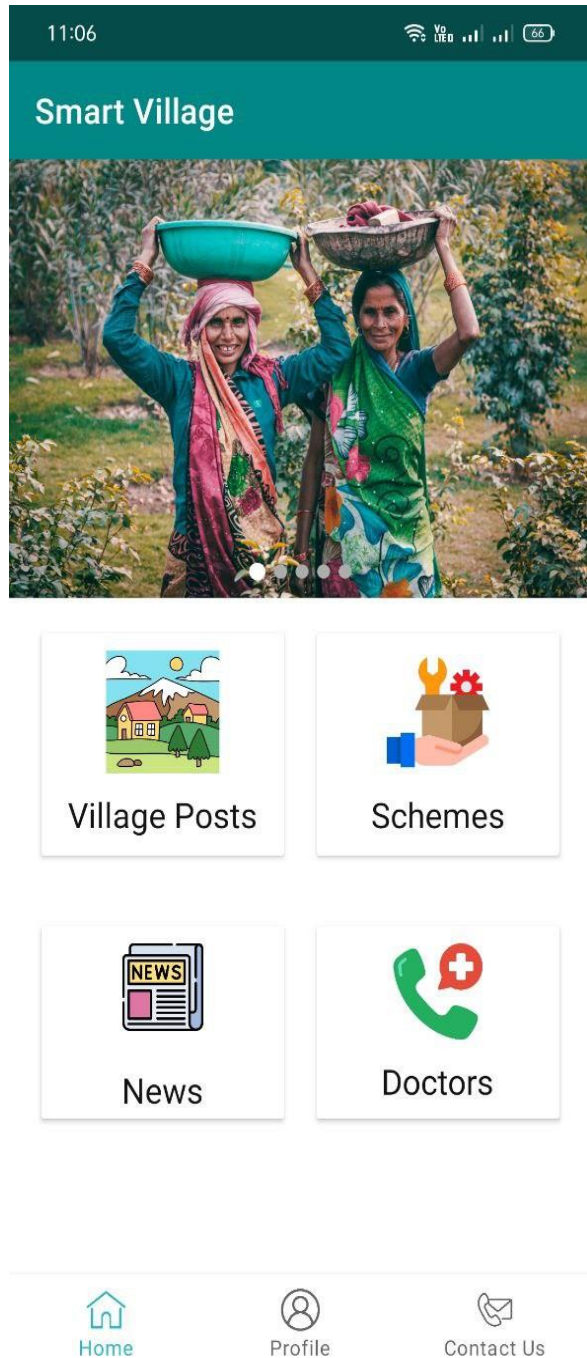
Age \*

Gender : Male ▼

Occupation : Farmer ▼

Marital Status : Married ▼

**REGISTER**



## SmartVillage

Address :

Chikhali, Sangamner 422605,  
Ahmednagar, Maharashtra



smartvillage@gmail.com



022 4120 1220



+91 8605858399

## Follow Us On



Home



Profile



Contact Us



Rushikesh Bodkhe

23-12-2022 11:00 AM

### Creative Gym

संगमनेट मधील सर्वात मोठी, सुसज्ज व हायटेक जिम



Village Admin

22-12-2022 02:24 PM

### Sarpanch





11:07

Upload Post

Select Image

Post Title

Upload Post

11:07

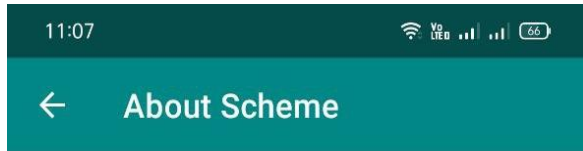
Schemes

**कुसुम योजना**  
23-12-2022 10:15 AM  
[Read More](#)

**Animal Husbandry and Dairying**  
21-12-2022 11:56 am  
[Read More](#)

**Mission Antyodaya**  
20-12-2022 04:54 pm  
[Read More](#)

**प्रधानमंत्री सुरक्षा बीमा योजना**  
**पंतप्रधान सुरक्षा विमा योजना**  
16-12-2022 09:03 AM  
[Read More](#)



### Animal Husbandry and Dairying

21-12-2022 11:56 am

**Start Date :** 1st February 1991

**End Date :** NA

The Department is responsible for matters relating to livestock production, preservation, protection from diseases and improvement of stocks and dairy development, and also for matters relating to Delhi Milk Scheme (DMS) and National Dairy Development Board (NDDB).

**Apply**

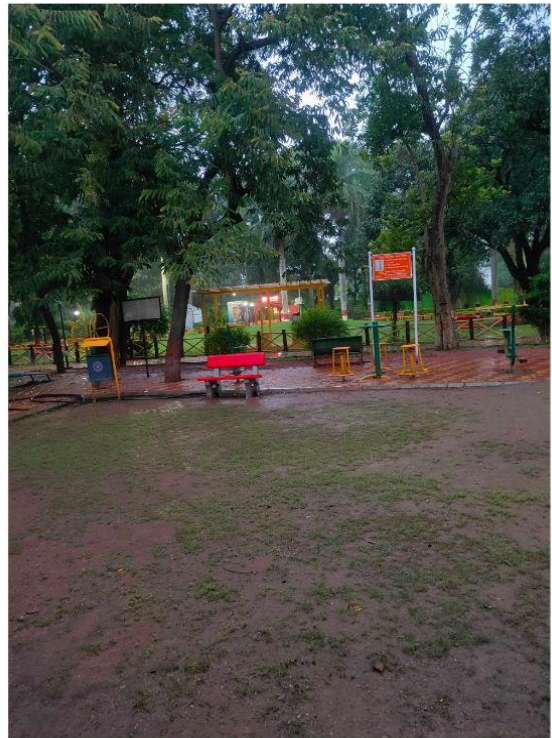


Village Admin

14-12-2022 11:38 PM

### थोरात गार्डन मध्ये आज पाऊस झाला

आज थोरात गार्डन येथे पाऊसाने खूप कहर घातला. सर्व लोकांना आपला व्यायाम सोडून पळून जावं लागलं.



Village Admin

13-12-2022 12:22 AM

### भावपूर्ण श्रद्धांजली

## MBBS



Dr. Ameya Ashok Ithape  
9122718737

CALL NOW



Dr. Sonal Jhalani  
Khandelwal  
8530742651

CALL NOW

## BHMS



Dr. Rahul Baldawa  
7117729912

CALL NOW

## BYNS



Dr. Santosh Bangar  
8605858399



## **LIMITATIONS**

Besides the above achievements and the successful completion of the project, we still feel the project has some limitations, listed as below:

- Only limited information provided by this system.
- Since it is an online project, user needs internet connection to use the web application.
- User has no authority to delete his/her uploaded posts.



## **FUTURE ENHANCEMENT**

- If you verify email address then only you logged into application
- Forgot Password
- Minimize buffering of images
- Fast Fetching details of posts, news, schemes, doctors.

## **CONCLUSION**

Most of the goals and features of this application that were planned earlier have been accomplished.

This application will be a time saving and will be easily accessible by the user also leading to user satisfaction.

It is user friendly and provide security.

# BIBLIOGRAPHY

## Books:

“Beginning Android Application Development”- Wei-Meng Lee.

“Fundamentals of Android App Development”- Sujit Kumar Mishra.

“Firebase for Android Development”- Ashok Kumar S.

## Web Sites:

<https://developer.android.com/>

<https://www.javatpoint.com/>

<https://stackoverflow.com/>