



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

SMART GRAM PANCHAYAT

E-Panchayat- A Smart Solution

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Abstract: In this era of modernization and technical advancement where government is taking various initiatives to make things digital and paperless, one of such wonderful initiative was the introduction of “Smart Gram Panchayat” or “E-Panchayat” system which helps people from rural area to solve some of their day to day problems like meeting with sarpanch, resolution of issue, issuing of some certificates like character certificate with just few simple clicks sitting at comfort of home or work place without the need to take leave and meet in physically in person. Even government is also providing funds and providing its full support to encourage such system via recognizing it through rewards like Himachal Pradesh Panchayati raj department won 1st prize under e-Panchayat Puraskar(2020) by the Union Ministry of Panchayati Raj. For achieving such a huge success ICT (Information and Communication Technology) and respective department support played a vital role and in the upcoming year government is planning to increase such number of E-Panchayat system and introduce more smart villages as it is paperless, time saving and also convenient to use and government can easily keep a track on various activities

Keywords: E-Panchayat, ICT, smart village, rural support, Application

I. INTRODUCTION

This e-panchayat system is an android application connecting villages together with much more ease and user-friendly UI with many feature and services. In this application end user i.e. in simple term “Local People” use android application for applying online documents, booking appointment with sarpanch, tracking down of various development activity, post their query, feedback, providing wage to local people in case of any open requirement for labour and one of the most important feature i.e. a common discussion forum where every villager can discuss their issues, getting to know about various schemes and plans government running for the people’s welfare and making them aware with the same and also give their opinion or suggestions on various matters, etc. All this functionality is available to villagers on their fingertip providing them with a seamless and comfortable digital experience. Also, in case of any meeting of any information conveying to villagers Sarpanch can broadcast the message to all in no time, this is achieved using fire base for sending and receiving quick notifications from Sarpanch to user and vice versa.

For example: When any user or villager wants any document like address proof, caste certificate etc, then firstly he or she fill the detail of the require document needed and choose the available slot and book an appointment with Sarpanch for the same and submit it for approval. Then the submitted application goes directly to the sarpanch for the further course of action and he gets notified regarding the same and approves the request which marks for a confirmed appointment. Then sarpanch has 2 options either he can issue the certificate to him digitally which the person can download in no time in case of an emergency need after verifying documents online or another way is by meeting in person.

II. RESEARCH GAP

- 2.1 Birth & Death Registration and Certification
- 2.2 House Tax
- 2.3 Old Age and Other Pensions
- 2.4 Works Monitoring
- 2.5 Financial Accounting & Book Keeping
- 2.6 Land Records Access
- 2.7 Water Connection and Water Tax

III. PROBLEM FORMULATION

This digital platform will provide a virtual platform for interaction and specially in COVID times where it is very important to maintain social distancing in comparison to traditional approach where we need to visit sarpanch physically.

- 3.1 In traditional approach if there's vacancy for labour then sarpanch use to manually search for the labour whereas in digital mode sarpanch will post the notification within the app and all individuals can get notified and can work if they want, it saves a lot of time and effort.
- 3.2 It is easier to connect with the sarpanch in case of digital mode irrespective of position of sarpanch he can by sitting at any place hear and resolve queries whereas in traditional system generally if the sarpanch is out of town then one need to wait till his return.

Example: Paperless Indian villages? they could be a reality before long.

Under the MoU, the SPV can work with the Panchayati rule ministry to convert all gram panchayats into 'digital panchayats', supporting the gram panchayats in execution information digitization and making certain speedy delivery of all panchayat-level services.

"This MoU will act as a catalyst in promoting rural BPOs in each gram council, of that therearea unit over a pair of.5 lakh," MeitY same.

The MoU will make sure that CSCs maintain records of all gram panchayats in digital format, besides supporting gram panchayats in conducting varied surveys. CSCs will work as digital acquisition centres for all elective representatives of gram panchayats.

"We can automatize and digitize day to day work on gram panchayats, have interaction e-panchayat applications and alternative central and government applications to form a real digital council," supplementary Dr Dinesh Tyagi, CEO, CSC SPV.

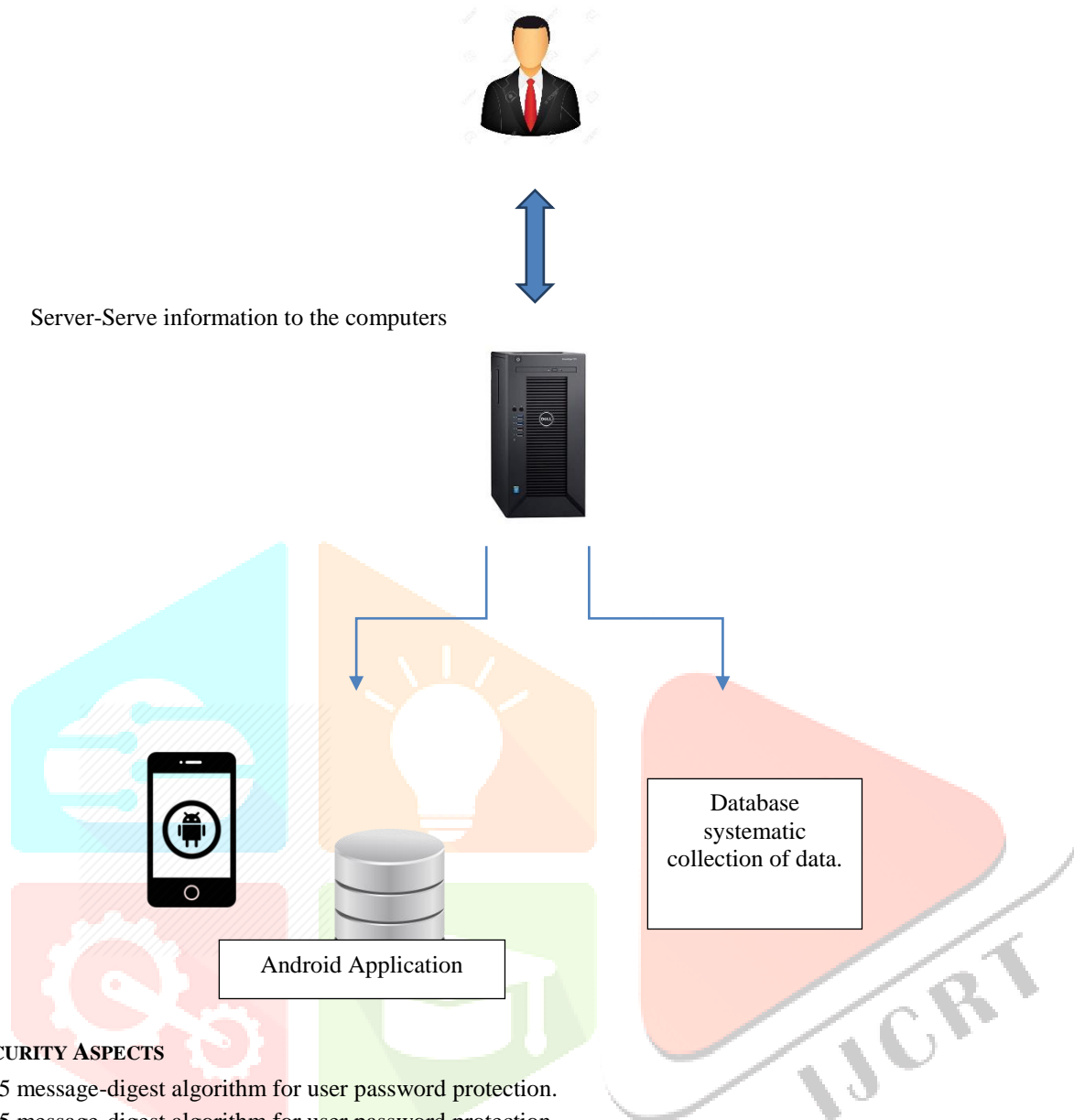
According to him, the collaboration can see CSCs operating as a degree of contact for integration, implementation and delivery of services from alternative ministries and department from the central and government.

- 3.3 Appointment system in digital mode will save time and effort of both sarpanch and peoples as for any document or for any in person meeting they can have a prior appointment with the sarpanch whereas in traditional approach there is always uncertainty regarding whether sarpanch is available at a particular time or not.

IV. DESIGN

4.1 Methodology

Admin- a person who is responsible for the upkeep, configuration, and reliable operation of computer systems.



V. SECURITY ASPECTS

- 5.1 MD5 message-digest algorithm for user password protection.
- 5.2 MD5 message-digest algorithm for user password protection
- 5.3 Password reset with timeout – Link will be sent to the email account of the user
- 5.4 Authentication of password
- 5.5 Access control using object-oriented programming
- 5.6 Keeping the security data separately
- 5.7 Cross-site scripting
- 5.8 Out-of-bounds write check
- 5.9 Improper input validation
- 5.10 Out-of-bounds read check
- 5.11 Improper restriction of operations within the bounds of a memory buffer
- 5.12 SQL injection check
- 5.13 Exposure of sensitive information to an unauthorized actor check
- 5.14 Use after free check
- 5.15 Cross-site request forgery (CSRF) check
- 5.16 OS command injection check

VI. ADVANTAGE OF APPLICATION

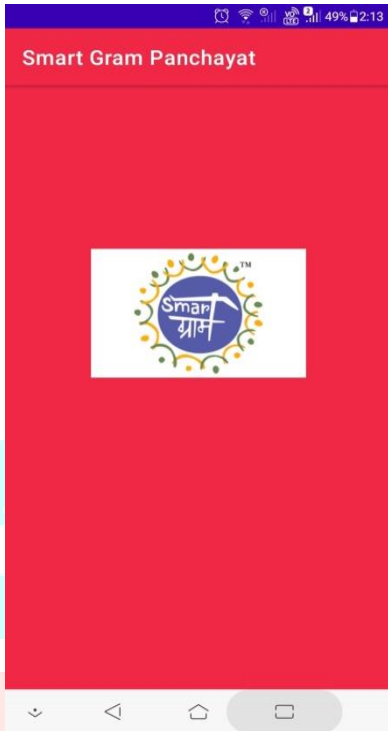
- 6.1 Now a days in each home at least one person having robot phone thus it'll be simple to use as compare to website or different.
- 6.2 A well-designed mobile app will perform actions abundant faster than a mobile web site.
- 6.3 Apps will more save users time by storing their preferences, and victimization them to require proactive actions on users behalf.
- 6.4 Apps sometimes store their knowledge domestically on mobile devices, in distinction to websites that usually use web servers. For this reason, knowledge retrieval happens fleetly in mobile apps.

VII. CONCLUSION

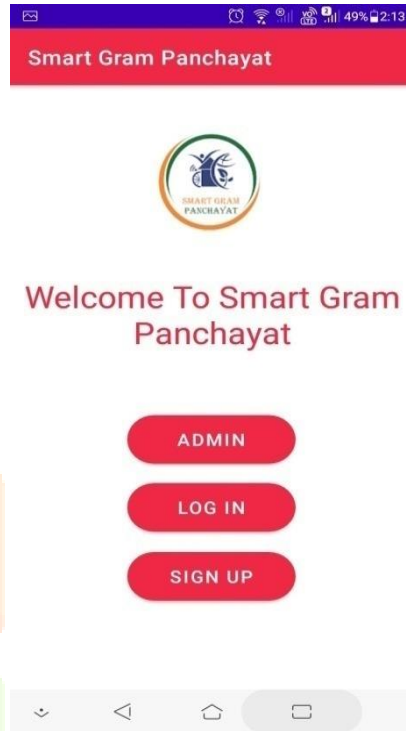
Now a days maximum people know how to use apps but only some of people know about how to open website as it is a village level project so village people will use it so making application will be much more beneficial as compare to the website. The application that I even have develop in this user will simply register in this application.

VIII. SNAPSHOTS

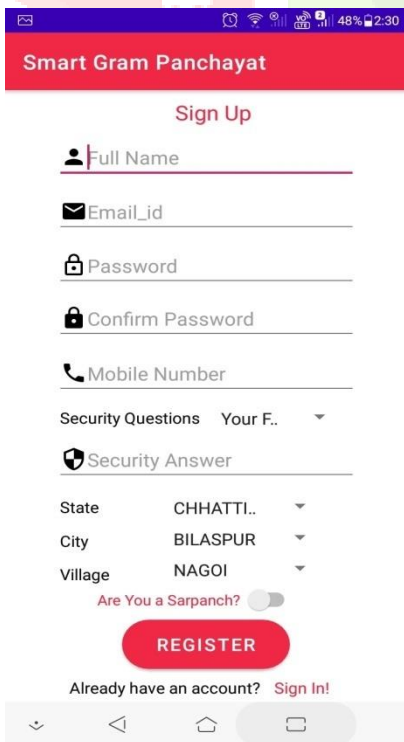
1. Launching Page



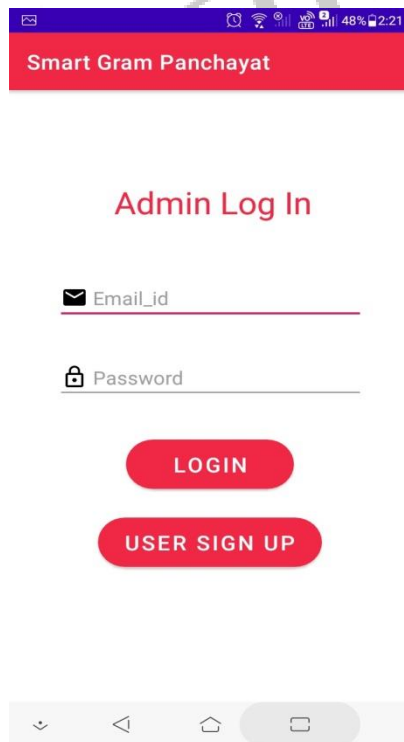
2. Home Page



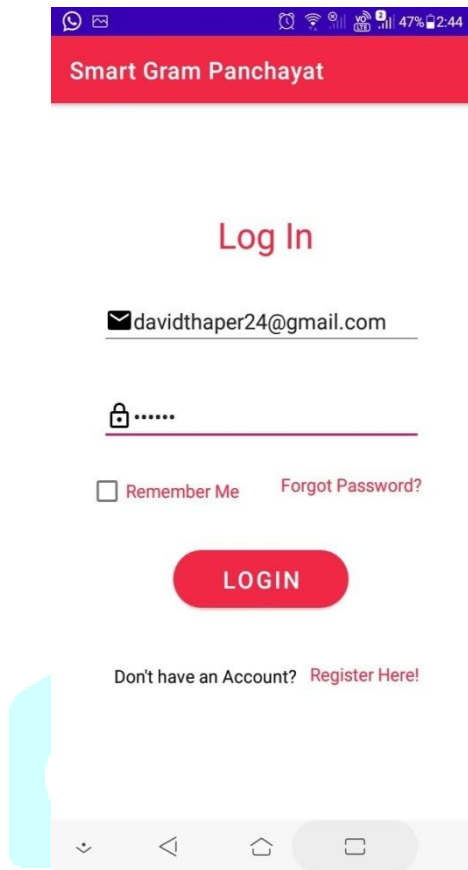
3. Sign up Page



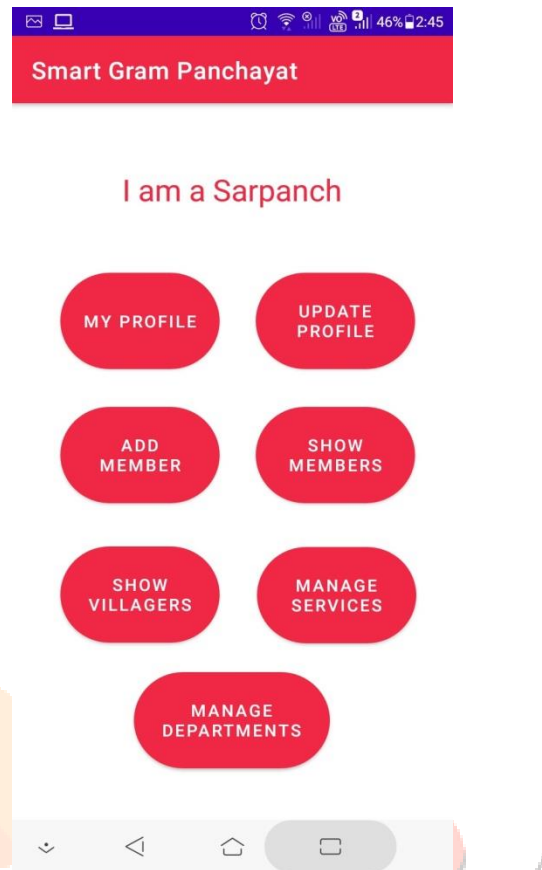
4. Admin Login Page



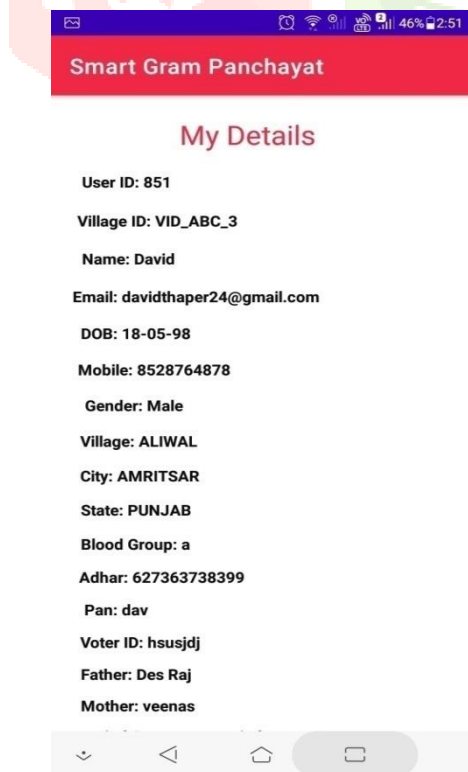
5. User Log In



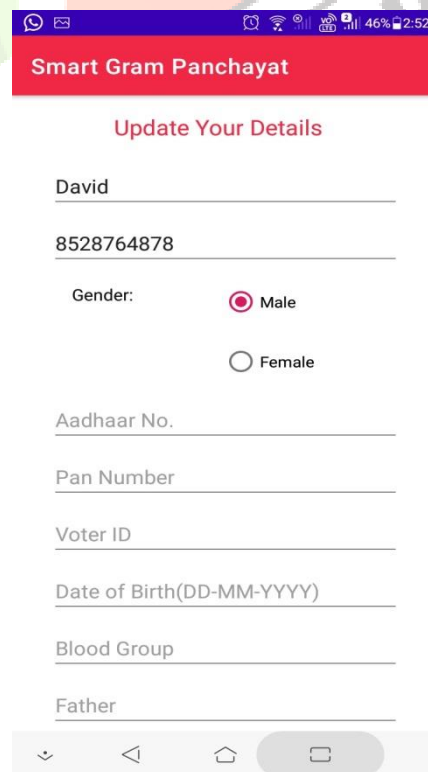
6. Sarpanch Home Page



7. User Details



8. User Update Details



9. Village Sarpanch Contact details



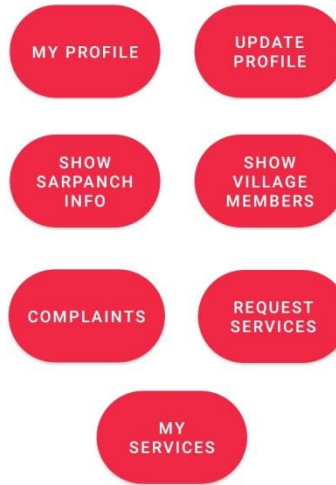
Contact Details

Sarpanch Name: David
Village: ALIWAL
Mobile: 8528764878
Email: davidthaper24@gmail.com

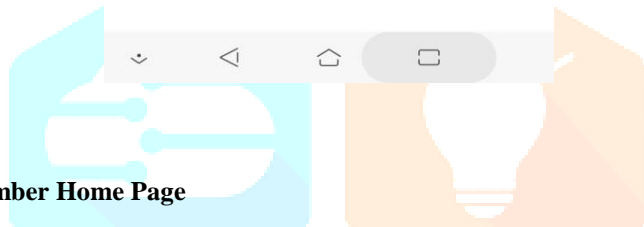
10. Villager Home Page



I am a Villager



11. Member Home Page



I am a Member



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