Team 16

NGO Information Management Suite 1.0

Software Requirements Specifications

Overview

This is the high level design document for NIMS, an information management suite for an NGO.

The first part gives a brief description of the project topic. The second part is the overview of the design of this application. The third part is the system overview which covers information regarding the application environment and the hardware and software requirements. The fourth part is the system design which contains relationship design, and database design, use case diagrams and the design architecture.

Target Audience

This document is intended for the technical team. This document contains detailed information regarding implementation procedures.

Revision History

Version	Primary Author(s)	Description of Version	Reviewed By	Date Completed
1.0	Palashi, Surbhi, Jesal	Software Requirements Specifications	Aakash, Parth, Lalit	14th Feb, 2012

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1. Introduction

1.1 Purpose

SRS (System Requirement Specification) is an organized way to collect direct and indirect software requirements for the software to be developed. It will serve as a guide for the developers on one hand and a software validation document for the prospective client on the other. It discusses the functional, non-functional, performance and development requirements and deliverables along with estimation, risk analysis and planning of the project

It is an organized document with an aim to assist in designing, coding and testing of the software and reduce the development effort by clearly enlisting all the system requirements specification. It'll help the development team visualize the scope of the project and extend it to its best possible use.

1.2 Scope

The product NIMS is an android-application and server based application software that will help in evaluating and cataloguing different tasks of the NGO in an efficient manner.

For the above purposes there are different modules concerned with data storage and update at server side, data updating and retrieval at the coordinators' side, analyzing data statistically and social mapping area and data specifics to maps of the settlement under observation to help better visualization for NGO.

1.3 Clients and Stakeholders

Clients: The client of our project will be the NGO - **Vicharata Samuday Samarthan Manch,** based in Ahmadabad who works for the rights and welfare of Nomadic (Vicharata) & De-notified (Vimukta) communities and aims to help mainstream these communities by enabling them to fight for their rights.

Stakeholders: The main stakeholders of this project are as follows:

- Users: The volunteers of the NGO,
- NGO Admin Staff, who derive conclusions of the incoming data.
- Donors to the NGO.
- Developers: the developing team of this project, i.e.: SEN Team 16 of B.Tech batch 2009, DA-IICT.

1.4 References:

- Software Requirements Specification format - Copyright © 2002 by Karl E. Wieger.SRS version 1.0 - IT-314 –SOFTWARE ENGINEERING PROJECT TEAM 8, 2010
- SRS version 1.1 - IT-314 - SOFTWARE ENGINEERING PROJECT TEAM 5, 2010
- SRS version 1.1 - IT-314 - SOFTWARE ENGINEERING PROJECT TEAM 9, 2011

2. Overall Description

2.1 Product Perspective

NIMS aims to provide a web-based information management system that will help the NGO in cataloguing their work in various fields in an efficient computerized manner rather than the manual, paper-based work style that they are using now.

This will help the NGO in proper management of the data collected with the help of server based system and analyzing the data for future use.

The product will provide the NGO with social mapping capabilities which helps in visualizing the work done in different fields and area by the NGO and other basic information needed by NGO.

2.2 Product Functions

This product provides following main functions to the client and user of the product:

- An interactive android application for the volunteer of the NGO who visits various families and schools and organizations for collection of basic data.
- Server based information management system which organizes and analyses the data collected by the volunteers in computerized manner.
- This management system will also allow the coordinators of the NGO to better understand the work in progress and tasks at hand in an organized and statistical manner.
- Public website for public to view the various activities and tasks performed by the NGO and their progress.
- This form of website will give a varied option of customizing the website for public and admin view according to the need.
- Social maps which will give an explicit idea to the NGO about various tasks carried on and to be done in various areas on a visualized map.

2.3 User Classes and characteristics

Main user classes of this product are:

Coordinators: They will use the ANDROID app on their respective tabs or phones for collection and assessment of the families and schools of the areas they are assigned to work in.

NGO Admin: They will have full access to the server side system and the website and will be in control of all the information collected at their side. They will be able to organize the work to the coordinators on the basis of the analyzed data and social maps at server side.

General public: This constitutes the general public which can go through the workings of the NGO with the help of their generic website, make donations and also help as volunteers as they desire.

2.4 Operating Environment

We will be using the HTML, JavaScript, and CSS for the generic website development and front end coding. We will be using android software development libraries in the IDE named Eclipse based on Java for android application development. This application will be later tested on an android emulator and a real

android phone a well. The back end coding of the server side information management system will done in PHP. The social mapping will be made available using Google maps apiAPI/ jquery plugin. The main database creation is done on MySQL and querying will be executed through PHP.

2.5 Assumption and Dependencies

- It is anticipated that each volunteer will be having or given the basic equipment on which the android apps can run, by the NGO.
- The person working at the NGO's main office will be having the basic knowledge of the computer working and extraction of data.
- On field test runs will be conducted by the development team and later once local language support/ adequate training to volunteer to use NIMS in English is available, the volunteers will be handed over to test.

2.6 Design and Implementation constraints

Database Design: The database structure should be as complete as possible during the design stage but there should be a room for modification without a large overhaul during later phases.

The android application shall use the SQLite database.

The system to be used at admin's side shall be in compliance with all Accessibility, Web Design, and Security policies applicable.

As part of standard operating procedures, a testing plan will be documented during the design phase. The testing plan will be based on user roles, modules or use cases, required tasks and expected outcomes.

Data extraction and collection will be done on a real time basis depending on availability of GPRS/3G network. In case the network is not available then the outgoing data will be stored offline on the device temporarily and transferred once network is made available.

The android application developed should be able to function properly on the equipments (android based phone or tablet) to be used by the NGO at volunteers' side.

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interface

Our product consists of a web interface and a client-server application. The public website of the NGO will provide relevant information to the general public about the NGO's activities. It will display the various on-going activities of the NGO along with upcoming endeavors as well the history of the NGO. The interface of the website will be customized according to the NGO's specific needs. The website will also provide contact information so that willing volunteers, donors and other interested people can contact the NGO.

The Android based client-server application will be used by the NGO volunteers to transmit information related to the NGO's work as well as the volunteer's location (via GPS while he/she is performing social mapping). The volunteer will provide data

regarding the families living in the area of interest as input to the Android application running on a mobile Android device. The interface of this application will be clean and efficient. It will enable the volunteer to easily collect data and update the NGO's database server.

The server side of this application will have an interface to provide access to the data collected in the NGO's database so that the NGO can analyze and highlight the main issues based on their locations. The client side application interface will have tools to enable the volunteer to effortlessly collect data related to the NGO's activities in that location. The server side application interface will provide tools and options to easily access and search the data stored in the NGO's database server based on user-defined search criteria.

3.1.2 Software Interface:

Software	For
RUP , Microsoft Office Project 2003	Project Planning and Management
Eclipse IDE	developing android application
Android Emulator plug-in	Android Application Testing
Git	Version Control
MySQL	Database Management
Google Docs and Google Groups	Team coordination and document sharing
Dia	Dataflow, E-R and Design diagrams
WAMP	Testing and implementing PHP scripts
Google Maps API or JQuery plug-in (like Craftman)	Implementing Social Mapping

3.1.3 Hardware Interface:

Our product has a client-server application and the client side (volunteer in the field) will have to be connected to the server side (NGO's server) using GPRS (or 3G if available).

The client side of the application will run on an Android based mobile device which will be used by the volunteers to collect and update data at the server side.

On the server side, there will be a server for database management and data analysis (for social mapping) which will have to function properly at all times to ensure the safety and security of the data collected.

3.1.4 Communication Interface:

The input device at the client side would be a mobile Android based device. The output device will be the computer display screen running an Internet browser. Browser Compatibility testing will be carried out to know specific browser requirements in terms versions etc.

3.2 System Features:-

The interfaces for the server side (controlled by the NGO admin), the client side (used by the coordinators on their Android based mobile devices) and the general public website of the NGO are all different according to their varied needs.

3.2.1 for NGO Coordinators:

Login:

On their Android devices, the coordinators can login and access and update the database.

View/Update Campaign:

Coordinators can view the information about campaigns stored in the database and can also update and input data about new campaigns.

View/Update Family Profile:

Coordinators can view and update family profiles that are stored in the database. The family profiles give information regarding the identity cards held by each of the family members and other general information about the families.

View/Update School Information:

Coordinators can update and review information and location of schools which serves as input to the social mapping of schools.

View/Update Social Maps:

Coordinators can access and update the database with information about the location and general information for social mapping.

3.2.2 for NGO Admin:

Login:

NGO administration personnel can login to access the database server for information pertaining to the functioning of the NGO on the field as well as off it.

View/Update Coordinator Profile:

NGO admin officials can view and update information about the coordinators employed by the NGO. A coordinator profile contains information like the coordinator's assigned locations and their work record. They can also register a new coordinator on the database.

View Coordinator Location:

The NGO admin personnel can view each coordinator's location on the field via the GPS system on the coordinator's Android based mobile device.

View/Update Campaigns:

The NGO admin can view and modify information about the various campaigns run by the NGO.

View Family/schools Information:

The NGO admin personnel can view information regarding schools, families and hospitals fed to the database by the coordinators.

View/Update Social Maps:

The organization can view and update information related to social maps.

3.2.3 for the general public:

View Campaign Information:

The general public can access information about the campaigns and their progress of the NGO through the generic public website of the NGO.

View Timeline:

The public can view a timeline feature which we are planning to implement so as to know a track record of the events and activities of the organization.

View Social Maps:

The public may access the social maps generated by the NGO on the website

Search:

The public can search the website for any information relating to the NGO.

Register:

The general public can voluntarily register on the website to become a volunteer with the NGO.

3.3 Functional Requirements:

The functional requirements describe the intended behavior for desired functioning of the product. They are organized into use cases as follows:

Use Case 1:

Use Case	Client Login on Android Device
Description	Logging into a android device
Actors	a. NGO Coordinator b. Software Maintenance personnel
Assumptions	a. Login screen is always available first on opening the client application. b. Login password and username are known
Steps	a. Enter Username b. Password
Variations	a. If username and password have been set to “remember me” then click login straightaway. b. Wrong Password and Wrong Username c. Wrong password or Wrong Username
NonFunctional	Registration not to be provided at client side.

Issues	What if coordinator forgets password?

Use Case 2:

Use Case	Client Logout on Android Device
Description	Logging out from an android device
Actors	NGO Coordinator Software Maintenance personnel
Assumptions	Logout option is always available across all screens in a session
Steps	Click “Logout”
Variations	None
Non-Functional	Inform actor about logout success by showing a login screen and a message-”You have logged out successfully”
Issues	a. GPRS/3G connection of the phone is lost. b. Sudden Battery down c. Request Timeout

Use Case 3

Use Case	Server Login
Description	Logging in at the Server Side.
Actors	a. NGO Admin. b. Software Maintenance personnel
Assumptions	a. Web Interface is reachable. b. Login screen is loaded on reaching the server side web interface. c. Login username and password are known
Steps	a. Enter Username b. Password
Variations	a. If username and password have been set to “remember me” then click login straightaway. b. Wrong Password and Wrong Username c. Wrong password or Wrong Username
Non-Functional	None

Issues	What if Password or username is/are forgotten?

Use Case 4:

Use Case	Server Logout
Description	Logging out at the Server Side.
Actors	a. NGO Admin. b. Software Maintenance personnel
Assumptions	Logout option is always available across all screens in a session
Steps	Click Logout
Variations	None
Non- Functional	None
Issues	None

Use Case 5:

Use Case	Submit Social Map datum
Description	Sending geographic information of a place type and name to server.
Actors	a. NGO Coordinator b. Software Maintenance personnel
Assumptions	a. GPRS/3G connection already established b. Coordinator has logged into a session.
Steps	a. Fill in name of the place. b. Fill in type of the place from the drop down list. c. Submit information. (GPS information fetched by the device and embedded into the outgoing packet appropriately.)
Variations	a. If information is already present in the database then return a message informing about it. b. Type and Name are both required fields so submission not possible without their entries.
Non-Functional	Inform actor about logout success by showing a login screen and a message-”You have logged out successfully”
Issues	a. What is GPS data is not reachable? b. What if GPRS connection is lost in between activity?

Use Case 6:

Use Case	Submit family information
Description	Posting a Form filled for family information to the server
Actors	a. NGO Coordinator b. Software Maintenance personnel
Assumptions	a. GPRS/3G connection already established b. Coordinator has logged into a session. c. Village and Program information already filled (via GPS).
Steps	a. Fill in the details of a family b. Submit.
Variations	If information is already present in the database then return a message informing about it.
Non-Functional	Inform actor about logout success by showing a login screen and a message-"You have logged out successfully"
Issues	a. What if GPS data is not reachable? b. What if GPRS/3G connection is lost in between activity?

3.4 Non-functional requirements:

3.4.1 Performance requirements:

- The NIMS is a web-based portal and hence many variables like server, operating systems (mobile/tablet/pc), coordinator android application, browsing, network coverage and speed affect the performance of the system.
- The size of the database is dynamic and it subsequently grows on filling up new forms provided for various projects by the coordinator for different families and individuals.
- The software is designed to be a multi-user system, and thus increase in number of simultaneous users feeding in or accessing data should not affect the response time or the performance of the system as well as the individual's application; trade-off between speed and efficiency should be wisely decided based on maximum user constraint.
- All the constituting project portions of the software should run and update independently without interfering with other portions, whereas common database will be shared and updated by users depending on their permission/restriction level.
- The searching of the central database being queried must be equipped to handle large number of queries at a time. There is no hard limit on the total number of queries executed in the software.
- Data updates should be made at real time to the database and should immediately be available to others with the authorization.

- The network provider should provide enough bandwidth and speed for efficient data transfer between two devices.

3.4.2 Domain requirements:

- Domain required to make the NGO server live; only then will the coordinator be able to submit his forms into the NGO server database.

3.4.3 Safety requirements:

- The information that is being removed can be accessed indirectly, user can either maintain his/her own log book or can refer to the log file associated with the system.
- The coordinators and administrators will be given unique user-name and passwords to view or edit pages depending on their permissions to access the data, so that there is no false or ambiguous data entry from any random person who is not a part of the organization.
- The computer must be well protected from viruses and other Internet-based threats in order to avoid crashing of server system, as it is the most crucial of all the components. Database should be secured with appropriate passwords and data backup options.

3.4.4 Security Requirements:

- Security will be inbuilt in the system, which will not allow unauthorized access to the system database. Moreover, it'll be insured that a user is tightly bounded to the permissions/restrictions of his domain and in any case is not able to violate it.
- If any user logs out, then the session is said to be closed and he has to login again to use the software i.e. he cannot get back with simply using 'Back' button of the web-based interface or application.
- The system logs off the user automatically when the application is shut down by any means. In order to regain entry to the system, the user must log back in.
- For security reasons, the Web-based application logs off the user after a certain duration of inactivity. In order to regain entry to the system, the user must log back in.
- The website must implement security in three ways.
    1. First only the users who have a valid username and password should be allowed to login to the website, application and administrative server.
    2. Only the coordinators have access to the detailed data from the database regarding the projects of the NGO and their progress.
    3. Lastly, among the users, the access levels must be clearly defined. The order of access levels are Administrator > Coordinator > Donor > Visitor.

3.4.5 Software Quality Requirements:

1.) Maintainability:

- The user must be able to browse through the application without any difficulty.

- All the requirements and system features are well documented in both, soft (in-built help) and hard versions user manuals which we intend to ship along with the product itself. Along with it, the user interface developed will be simple. Both these factors will attribute to efficient utilization of resources by user.

2.) Portability:

- The software will run on all commonly used platforms; i.e. it allows its source code to be compiled for different computing platforms.
  1. .exe- for windows
  2. .rpm/.deb package – for LINUX
  3. .dmg- for Macintosh
- Prerequisites for portability although will be presence of a few applications and features that will assist the functioning of our application, like XAMPP.

3.) Usability:

- The website should provide an option to uninstall the application from the system. This will erase all the data stored in the system database, lest there has been a data backup done beforehand.
- Any report or document can be viewed and edited by many at a time because that parallel modifications can be possible as the data handling amongst the coordinators hardly overlaps.
- The website should be able to run on a computer system if a set of supporting applications are installed.
- The website shall provide a self-explainable user friendly interface such that it is usable with minimum amount of effort.
- All steps of the website development should be well documented to ensure maintenance of the product through lifetime.

4.) Efficiency:

- There are no performance constraints on the website but it is desirable that the website occupies minimum space on the hard disk.

5.) Reliability:

- We intend to provide facility of backup of entire system along with information for the admin and user to deal with problems like power failure, disk failure, etc.

3.4.6 Other Requirements:

- The source code should be kept confidential and should not be leaked out of the team members. The documents provided by the client to be used during the development of the website are to be kept in secrecy and should be returned at the time of deployment.

4. Process Model

4.1 Introduction:-

Software development cycles are a series of identifiable phases that a project goes through during its lifetime. The basic phases are:

- Feasibility
- Requirements Specification

- Design
- Coding and Unit Testing
- Integration
- Testing
- Maintenance

Based on the scope and type of product, an appropriate model is chosen keeping in mind the possible risks and problems that the product may face.

4.2 Life Cycle of the Project:-

4.2.1 Key Features:

The different life cycle models considered were:

- Classical Waterfall Model
- Iterative Waterfall Model
- Prototyping Model
- Rapid Application Development (RAD) Model
- Incremental Evolutionary Model
- Concurrent Development Evolutionary Model
- Spiral Evolutionary Model

The following models were shortlisted for discussion for our project:

- Incremental Evolutionary Model
- Concurrent Development Evolutionary Model
- Spiral Evolutionary Model

After a team discussion on the pros and cons of each model with respect to our project, we decided to adopt the Incremental Evolutionary Model for our project.

4.2.2 Justification for accepting the model:

- It is the natural way of doing things like documentation.
- Even major software comes in a similar manner.
- We can put the first core increment for testing while we are still developing the other features. This will get us more user reviews.
- This model is suitable when meeting deadlines is difficult.

4.2.3 Advantages of the model with respect to our project:

This is a combination of iterative and prototyping model, which allows us to do parallel execution of work with the flexibility to go back in phases in case of any problems. Also it helps to develop projects in a version form, whereby we have some version completely made by the deadline in case of problem in adding many better functionalities.

4.2.4 Justification for rejecting other models:

Concurrent Development Evolutionary Model:

- The SRS must be continually updated to reflect changes.

- It requires discipline to avoid adding too many new features too late in the project.
- Possible miscommunication between different developing parties in this model can lead to confusion and can stall the project.
- It was not clear how to integrate various parallel activities in the concurrent model, and it would get tough to integrate the 3 parallel works of Android app development, server side implementation and website development in the end. So we decided to reject this model for this reason.

Spiral Evolutionary Model:

- It can be a costly model to use.
- Risk analysis requires highly specific expertise.
- The project's success is highly dependent on the risk analysis phase.
- It doesn't work well for smaller projects.
- The time spent for evaluating risks is too large for small or low-risk projects.
- Lack of risk management experience can be a major hindrance for this model.
- The basic stress of a spiral model is on Risk management and analysis, which is not a major activity of our work. We aim to develop an application and website, for which risk management is not a major issue by now. So we rejected this model which requires a lot of effort on testing and risk analysis.

Appendix A - Requirement Gathering

This section includes all the interaction sessions of the team members with the client organization's members. Modes of accession of expectations of the client from the software were mainly interviews and the on ground experience of one of the team members who has worked for a similar cause earlier.

Meeting no 1:

Date: 13th January, 2012

Venue: Main Office, Ahmadabad

(The following is a list of requirements was derived after the first interview done by the team.)

Q-1 How do you work for identity issues of the NTs and the DNTs?

Q-2 If you take of their national identification through cards and other documents please give us the details of your data collection procedure.

Q-3 How many offices or centers do you have? Where are they? How is the responsibility division done amongst your work force?

Q-4 Who all are your target population? Please give us few numbers to get an idea of the scale of your work.

Q-5 What do you think will be the challenges in terms of acceptance and comfort or usability, for the system being proposed by us for your organization?

Q-6 What all data should be collected from each family in a settlement being surveyed?

Q-7 What is your take on the idea on social mapping feature being added to the information management system? Will be useful?

Q-8 Please give an overview of all your activities, your interactions with the tribes, background information of the volunteers and coordinators and any other information which could help make the system more specific to your needs and environment that you work in.

Q-9 Please tell us all the features that you would like to have in the system being designed for your organization and also the things to be taken care of / constraints.

Meeting no. 2:

Date: 19th January, 2012

Venue: Main Office, Ahmadabad.

Interviewee: Mittal Patel

Questions Posed:

Q-1 What is the kind of the data collected by the NGO?

- Prerequisites
- The actual paper form submitted by the volunteers after data collection
- What are the fields in the forms?
- Is the data collection individual or family wise?

- Information about the register they maintain for records

Q-2 Describe the role of the teachers in the tent schools set up.

Q-3 Why do you need all of this data? What do you do with it?

Q-4 Role of donors:

- How do they make the payment?
- Any benefit offered by the NGO to the donors?
- Is there a form that donor needs to fill up?
- Do you have any online facility for payment? Would you like to have one?

Q-5 Do you have any manual or a brochure on the NGO?

Q-6 What kind of data, from that you collect, would you like to be publically accessible or viewable?

Q-7 Regarding specific projects that they have:

- Housing projects: How do you carry out this activity? What are the different phases?
- School Projects: How have you implemented this project? What kinds of records are needed to be kept?

Q-8 What category does your ngo fall under?

Q-9 Are all the activities carried out by your organization generic to the rest of Ngos working for the same cause?

Q-10 Who has developed your existing website? Who maintains it? You think we can contact him/her?

Q-11 Which is the acceptable and communicative language in the regions that you cover? You think your coordinators will be okay with the language of the system being Hindi or English?

Q-12 Details of the coordinators:

- What age group do they usually belong to?
- What is their educational and language background?
- What is their technical background or knowledge? Can they operate a multimedia phone properly with all its features?
- What will be their reaction to our system?

Q-13 Do coordinators submit their forms on monthly basis? How do they submit it?

Q-14 For investigation as well as deployment of projects, Are there enough coordinators to cover all your areas of interest?

Q-15 What are your expectations from our system and additional requirements?

Q-16 Social Maps:

- What is your take on the social maps feature of our system? Will they be useful? Do you have any specifications you would like to be catered to?
- Would you like the maps to be public? Or share with other NGOs the information gathered?
- Do you have any social maps right now? How many?

Q-17 Information about the trained NTs-DNTs.

Q-18 What is your interaction like with Government officials and police?

Q-19 Would you like to display the following additional things on your website?

- Donor Profile

· Social Maps
· Money Donation Authorization

Q-20 Are you okay with the tentative costing of the whole system?

Q-21 How technically sound/knowledgeable is the person you are planning to keep in charge of the server and database management?

Q-22 How frequently do you update your website?

Q-23 You think you can help us meet any of your coordinators?

Q-24 What kind of Content Management System would you like the system to have?

Q-25 What is the future growth plan of your NGO and the cause that you are working for?

Q-26 Do you have any future project plans that you would like us to cater to in our system? Do you have any future plans for our system features and facilities?

Q-27 What kind of technical or software assistance would you like in your existing activities and functioning?

Q-28 How would you like us to improve your website?

Q-29 What is the current technological purview of your organization? What are the features of the computer system in your main office?

Q-30 Do you feel a strong need of our product in your current scenario?

Q-31 Would let us know information about your account and fund handling if you want a "donation- online" feature added to your website?

Analysis of the data collected in above meetings:

After the two interviews the following analysis was made of the data collected:

- The cards (for their national and individual identity) have to be issued in a particular order. Ration card can't be issues before say a water id card or registered home's phone bill or something. And for UID there's a long list of cards required a priori. So for a particular family the sequence of card to be applied for will be different. Some have some cards, for them the card applications have to be filed accordingly while for those without any form of identification, the volunteer begins from the scratch.
- In Numbers the NGO works in 7 districts: Ahmadabad, Sabarkantha, Banaskantha, Patan, Mehsana, Gandhinagar and Rajkot. With over 100 volunteers, 21 school teachers(not teachers as qualified B.Ed people but volunteers acting as "Baldosts") and further there are 6-7 coordinators who are actually employed by the NGO under which they get phones and other perks to carry out the work efficiently. The target population consists of around 12 DNTs and 28 NTs with around 1000 settlements in may be around 400 villages across the 7 districts.
- Several Challenges
  a. None of these volunteers have even cleared 10th grade
  b. NGOs always have less resources then required.
  c. The NGO doesn't have regional offices.
- Data Format for family profile
  1. Family's head
  2. Family member info and his/her relationship with head
  3. Which community does the family belong to?
  4. Identity documents in possession.

5. Children in the family go to school or not. If yes which type, private or public?
6. Homes (self/rented/waste land/RCC/mud house etc?)

- In addition requirements include
  1. Student profile in schools
  2. Donor profiles
  3. project profiles/timeline
- Mapping.
  Stage 1: Social Mapping (overview)
  Stage 2: Segment Mapping (zooming in))
  Stage 3: Focus Mapping (zooming in further to the exact target groups)
  Maps have to be re-validated every 6 months.
  The graphic have to generate in relation to particular community and not district to taluka to village. Not the traditional way.
- Data format will have to be improvised in order to incorporate occupational data.
- The NGOs trains the community people in a number of disciplines that enable them to be self sufficient. So that's also a data to be taken care of.

The NGO works on identity issues for tribal communities, basically they survey about following matters.

1. Voter ID card:

· Survey: A family has Voter ID card or not.
· If doesn't have then gather info. About family like family head, no. of members in family, their relationship etc.
· Then write an informal letter about this and send it to government officials (NGO keep 1 copy of this letter)

2. Ration card:

· Find out the category of a family for ration card. APL, BPL or Antyoday.
· Then they will survey for ration card and if family doesn't have ration card then write a letter in a similar manner (to gov.)

3. Residential land:

· They are having their or own land or living on Gov. Land
· Gov. Provides land/home to families which are in BPL category, so NGO write letter in a same way.

4. Home

· Family have or not.

5. Child education:

· Survey about education of children of these families according to their age (6-14)
· Survey about drop-outs.

- If there are a group of 10 families then NGO start kind of tent school for children (age 6-14 year) to make them capable enough so that they can get admission in Gov. School.

6. Occupation:

Programs:

- Housing project
- School project
- Advocacy
- Life skill development (organize workshops)

Currently, 5 coordinators are working for 1300 settlements.

Appendix B - Glossary

- **NGO:** Non-government organization
- **NIMS**: A project to enable a NGO carry out efficient information collection, visualization and interactive mapping in order to make well informed decisions and give out efficient work results.
- **FUNCTIONAL**: Relating to or based on function especially as opposed to structure.
- **ADMINISTRATION**: A method of tending to or managing the affairs of some group of people (especially the group's business affairs).
- **AUTHENTICATE**: Testing for genuineness.
- **INTERFACE**: A program that controls a display for the user (usually on a computer monitor) and that allows the user to interact with the system.
- **SYSTEM**: A set of things working together as a mechanism or interconnecting network.
- **CLIENT**: A person using services of a professional person or organization.
- **END-USER**: Users at the end-points or one using the ultimate product.
- **STAKEHOLDER**: Someone entrusted to hold the stakes for two or more persons betting against one another.
- **SERVER**: A computer that provides client stations with access to files and printers as shared resources to a computer network.
- **ATTRIBUTE**: A quality or feature regarded as characteristic or inherent.
- **LOGIN / LOGOUT**: Entering into and going out of the system.
- **DATABASE**: An organized body of related information.
- **QUERY**: An instance of questioning.
- **PROFILE**: An analysis (often in graphical form) representing the extent to which something exhibits various characteristics.
- **WEB PORTAL**: A point that functions as a point of access of information