Team 16

NGO Information Management Suite 1.0

Termination Analysis Report

What have we done?

We have tried to make a complete standalone system for NGO data collection and quick information transfer, using a client-server model, for the surveyors to easily collect information and for their administrative department to analyze and track progress of projects and utilization of resources.

Overall, we have made:

- Android Data Collection Application for NGO coordinators(For data entry/viewing/update and GPS location sensing) (analogous to a client side)
- Central Web Information analysis platform for NGO administration (analogous to a server side)

Why this project?

There are the several reasons for taking up this project over other available options,

1.) Of all the ideas we had, most were highly technical stuff, like note taker application, speech recognition stuff and things that are used and needed and developed by tech-savvy people. This kind of work would probably not have taught us much about requirement understanding, user interfaces, etc. And hence we decided to take up this work, which had challenges in terms of scope, requirement and technical coding.
2.) Among the large number of NGO's across the world, few of them are not rich enough to use technology, and most are unaware even if they have considerable amount, if not very much. It is to cater to the needs of such NGO's across the globe.
3.) Such NGO's , especially in Asia and Africa are not able to work efficiently because of lack of information about the developing technology. The major time is invested in collecting data and information, which is most of the times to difficult to comprehend and is not objective. Also the area these NGO's work for is large for the data to be handled manually. This project helps them get information faster and analyze it better.
4.) We had a client NGO, who showed interest in at least helping us test the project. And it could have been a business project idea.

Learning:

- Tangible:
  1.) Learnt our respective coding languages, even if not IT people like – Android API, Java, PHP, CSS, HTML, Javascript.
  2.) Learnt about Version control and code sharing systems like Git and Bitbucket.
  3.) Learnt about the various libraries, like Twitter Bootstrap, Open Flash Charts, Openlayers, Javascript, Simile, Mapnik , specially used in server side web platform.
  4.) Learnt about the working of and on wampServer.

- Intangible:
  1.) Coordination among members with different ideas, areas of expertise and knowledge levels within them.
  2.) Time Management with respect to balancing this project with other commitments, especially when exams and quizzes came at different time for different people, due to different electives chosen by the members.
  3.) Organization of work, such that there is no overlap and confusion. This took little time, but was done after around 20 days of project start, by fixing 2 meetings per week(one in SEN lab and other on Thursdays). Project development was made smooth by keeping an accurate record of minutes of meetings, constant communication and daily work information chart being individually maintained.
  4.) Resolving disputes and arriving to conclusions on things, despite differing point of views and time constraints.
  5.) Mapping and utilizing different skill sets of the assigned team to fulfill estimated goals so as to make the most of what is available and extend them with additional assistance to achieve project goals.

Things that could have been done:

There were a few more additions that could have been done, given there was a little more time and would have surely made the entire idea more user friendly and safe to use:

- Language compatibility feature, to facilitate data collection in the regional language of the coordinators, in Android Application
- Implementation of data collection, mapping and maintenance of other projects of the NGO like school and art/skill conservation of the tribes.

- Making the server web platform compatible with all browsers (currently it faces some problems when accessed on Google Chrome, safari and Internet Explorer due to use of some specific libraries)
- Embedding Server Side Security
- Making the project open/customizable for use of various NGO's (larger task, to make the software generic, rather than specific, for organizations in need of efficient information management system in the social sector).

Known but unresolved issues

- The following data should be dynamically fetched from the server by the Android application on login but currently this feature is not functioning:
  Login information (username, password) of coordinators
  List of communities
  List of villages

Instead, all this data is statically hardcoded in the Android application. This hinders the implementation of auto complete feature for the Village entry field and the Settlement entry field.

- If two different villages with the same name exist in different talukas, then currently there is no way to distinguish the two villages from each other.
- All the families in each settlement share a common traditional occupation. This mapping of common traditional occupation of the families in a settlement to the settlement name could not be currently implemented.
- Pension Scheme pertains to the senior citizens in a family. However, currently pension schemes pertain to the families that are using them.
- Each family member should be categorized into four different age groups:
  0-14
  14-30
  30-60
  60 and above
  Currently, only each family member's birth year is recorded and age is calculated accordingly.
- The date and time stamp of the time when a campaign was started should be updated to the server but currently, this feature is not implemented.
  - Managing duplicate entries for the same family in the Android application's local database is not handled.
- The NIMS currently doesn't incorporate any data about schools reports that the NGO gets. This was mainly because what the development team understood was

that the NGO wanted daily reports of each of their 31 schools' activities which didn't seem feasible to the development team as providing 20 more android devices would not have been possible for the NGO but later on test day it was mentioned that the most important information required out of school was what was the transfer rate of a student from alternative school to mainstream school which we want to be incorporated into NIMS

- Families information display

  The NGO is primarily concerned in seeing how its programs affect the families and settlements that are covered as part of the programs. The NGO expected an element of time as well where ever data is being interpreted across NIMS.