E-Gram Seva

Proposal v1.0

Team 22

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REVISION HISTORY

Version	Author	Date
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Review Version 1	Karan Makim	January 15, 2013

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1. Introduction

1.1 Origin of problem

Researchers have long been interested in the potential of ICTs to enable positive change in developing rural India. In these environments, ICT interventions often fail because political, social and cultural forces work against the changes ICTs entail. We focus on India's rural region where villagers face challenges due to resistance to change in the village, and because of their limited education, training and status. As a consequence, villagers are often deprived of latest information relevant to their businesses. These factors appear to reduce the motivation of their development and impair their performance in their respective occupation.

With these rural challenges in our perspective, we aim to design a business model to provide cellular SMS service's to rural population pertinent to their interests. The SMS service will deliver information such as latest prices of agricultural products, changes in water & electricity supply times, job fairs, health care bulletins etc on a regular basis .A village person will be empowered to subscribe to various categories such as farming, jobs, healthcare, education etc & will be frequently updated with latest information in these fields through SMS service. We intend to deliver the content of the SMSs in respective native languages only.

1.2 Technical relevance

If certain assumptions are made (realistically) we can justify the technological relevance of the proposed system. The fact of the telecom boom in India and that each day more and more villagers are acquiring cellular phones at almost every corner of India enables us to think of a business which would be easily accessible through them. Thus a mobile application seemed to be an obvious choice for cost-effectiveness and user friendliness.

1.3 Objective

The potential client of the software is a rural development organization (Government or Non-Government Organization). The software aims at facilitating the organization to reach the mass of rural population not able to access internet, and providing them with the related and concerning information in their regional language through mobile phones, which is now a common thing amongst the rural mass (especially farmers). Also, as a future scope of replying to the queries of the villagers, the problems faced by the villagers to get relevant answers from relevant people easily is addressed by the use of the software. The villagers are benefitted with the easy access to information , and the organizations are benefitted by the easy contact to the villagers and addressing their problems , by providing them updated information (automatically) that the villagers have subscribed to as well as reply to their problems(automatically – which is a future aspect).

2. Project Scope

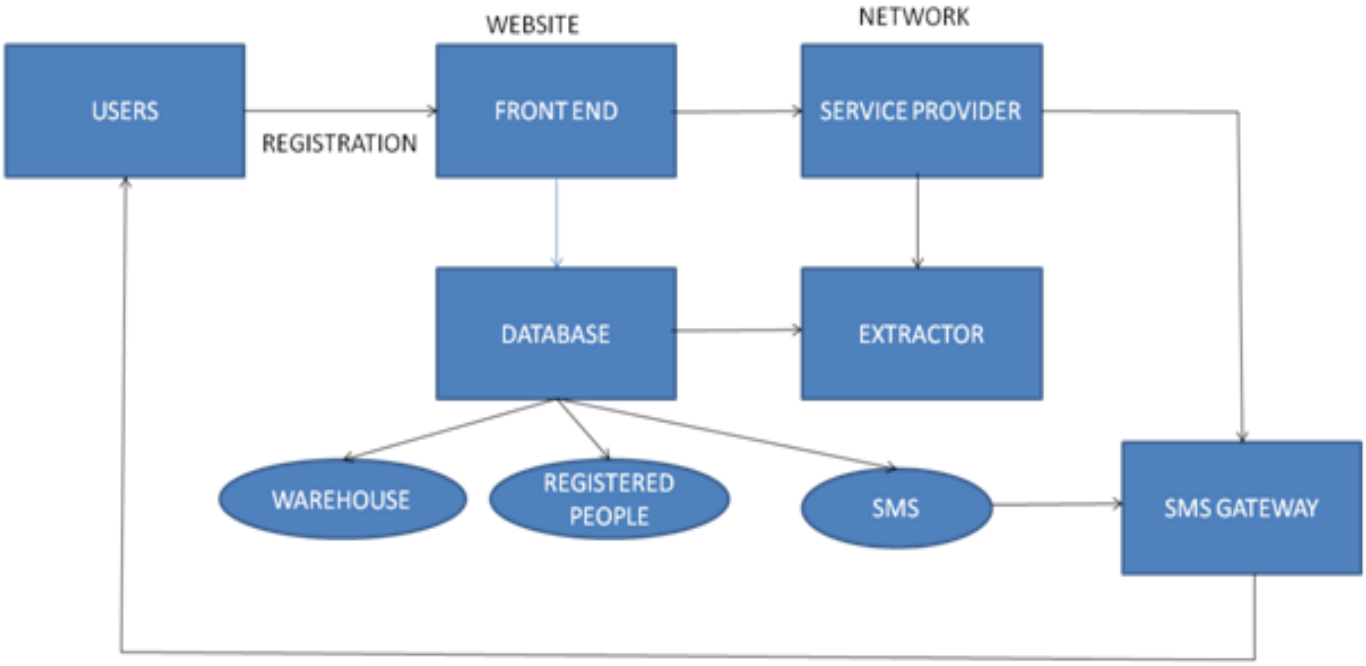
2.1 Present Scope

Our web based application aims to provide agricultural related news like prices of grains, weather forecast, duration of electricity and water supply, policies of canal diversions handy and easily available to the villagers (end users) specifically. Facilitating governmental and non-governmental organizations to provide information to the villagers and spread awareness among them. Some of the data can be directly extracted from newspaper sites, journals etc. and rest part can be updated on website manually. In this way it serves as cheap and effective way of providing information.

2.2 Future Scope

This software usability can also be extended by adding more features of job facilities etc. in future. In the present scenario this seems impossible due to lack of complete technical knowledge. But the need and demand of this facility and growing technology would certainly pave way of further development and progress.

3. Methodologies



The project will be a web portal giving general information collected from various sources. The project is divided into various steps:

- **Registration:** Users particularly the village folk like will be registering through various ways like sending SMS to our mobile number connected to our back end system.
- **Extractor:** The database comprises of warehouse i.e. information collected through various sources, registered people and the information to be sent to the registered users. The extractor develops and maintains the data warehouse.
- **Sending the SMS:** After extracting the information to be sent to the users, the information will be sent as SMS to the users through SMS gateways.

3.1 Requirements

3.1.1 Hardware

The project would require the users to possess cell phones with the basic SMS service. The organization should have computers with internet connection.

3.1.2 Software

The project requires WAMP server to provide a local server for running and testing PHP scripts at server side.
We would also require database software like Pg-admin to create the three types of databases needed.
We would also require MySQL to execute queries and some data mining software.
An SMS gateway would be one of the major necessities in order to push the created database of SMS to the mobiles of the registered users.
Web data extraction software: In case, if we don't get access to required database, we'll use Visual Web Ripper.
Visual Web Ripper is a powerful visual tool used for automated web scraping, web harvesting and content extraction from the web.
Our data extraction software can automatically walk through whole web sites and collect complete content structures such as product catalogs or search results.

3.2 Assumptions

- Limited to agricultural related news and updates.
- The updates will be demarcated to geographical boundaries.
- Database is provided to us by regional agricultural office.
- The users are aware of SMS service of mobile and are able to use this comfortably.
- The website will be in English.
- The SMS will be sent in the desired language after translation.

3.3 Challenges

3.3.1 Technical Challenges

- To send updates in the form of sms to the end-users using sms gateways.
- To extract relevant data from various newspaper websites.
- Trying to integrate Google translate (change data into native language) to our application.
- For the sms reception and sending through pc, we have multiple options. They are:
  I. Use a software for user level along with a modem with a sim, which acts as a cell-phone device.
  II. Have a mobile attached to a PC with some kind of polling software to monitor inbound SMS messages and convert them into an email and send it. This has obvious drawbacks as the PC will need to be on all the time to receive the SMS and you should have email software installed on the PC in addition to having the technical knowledge to do it.

Since the first option includes a database connected to the interface, it is more preferable.

3.3.2 Social Challenges

- To understand the current needs and design an application accordingly.
- As the application is for rural population, the application must be available in the language that can be understood by them, that is, in Hindi, Gujarati or their local language.

4. Schedule and Milestones

The following is our current schedule:

15-01-2013 – Project Proposal and Feasibility Study will be delivered

22-01-2013– Project functionalities and user survey will be compiled

30-01-2013– Project requirements will be delivered

14-02-2013– Project design will be presented

20-03-2013– Project Implementation will be presented

08-04-2013– Project testing will be completed

A detailed baseline schedule with all the tasks clearly defined will be updated as the project progresses.

5. Deliverables

- Software as the final product for the organization.
- Design documentation.
- User Guide to help user understand the software and its working.
- Reports that would be required at various stages of the Software Engineering process.

6. Software Tracking and Oversight

The following tracking methods will be used to monitor the project status:

- Group meeting twice a week and as and when required.
- Continual update of the Feasibility Report, Requirements and design documents.
- One or two team members will supervise each project milestone.
- Minutes are maintained for every meeting.

7. Coordinating Team

S. No.	NAME
1	Prof. ASIM BANERJEE
2	RUTVIK SINGH MAYURDHVAJ JHALA
3	MAKIM KARAN NARESH
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5	SAHIL SIKKA
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10	ABHISHEK SHUKLA

8. Intended Readers

- Project Reviewer (Prof. Asim Banerjee)
- Project Designer
- Project Developer
- Project Tester
- Client