

System Requirements Specification

for

Smart Classifieds – Sell Anything

Version 2.0

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Revision History

Name	Date	Reason For Changes	Version
Karthikeyan G A	25/03/10	The screenshot of the actual UI is added	2
Karthikeyan G A	22/04/10	Project Scope	3

1. Introduction

1.1 Purpose

Smart Classifieds – Sell Anything is a Semantic web application that aims in bringing together the advertisers and their potential audiences across the boundary of the system.

1.1.1 Document Conventions

Though this document is intended as the set of requirements and not a design document , technical information has been included wherever it was deemed appropriate.

Priority for all the functionality is assumed to be equal except where noted.

1.2 Intended Audience and Reading Suggestions

This document is intended for developers, project managers and users. It covers the features of this application, the use cases, the technical background and user interface specifications.

1.3 Project Scope

The project aims at building a platform to advertise products which may belong to different categories through classifieds. Unlike traditional systems which get the data from its own repository, this platform gets data both from its own repository and from other systems which are agreed upon a specific data-transfer format. The purpose of this data transfer, the semantic web technologies come into picture so that manipulation of data being transfer becomes easier. The users can post their classifieds and view the potential buyers across different systems. The project implements all type of classifieds as Internal Database. But the implementation of composite categories like computer, Mobile are not supported for the external system.

1.4 References

<http://www.obitko.com/tutorials/ontologies-semantic-web/>

<http://www.w3schools.com/semweb/default.asp>

<http://infolab.stanford.edu/~melnik/rdf/db.html>

2. Overall Description

2.1 Product Perspective

This application is a new application built from scratch as a part of Software Engineering and Data Modeling Subject. This application relies on the web 3.0 technologies like semantic web for the transfer of data that can be interpreted by the computer.

2.2 Product Features

The application will have the following features for the Users of the system

- Add new Classifieds
- View potential Audiences for the created Classified
- Search for Classifieds
- View a specific Classified

The application will have the following features that any external system can use to query on

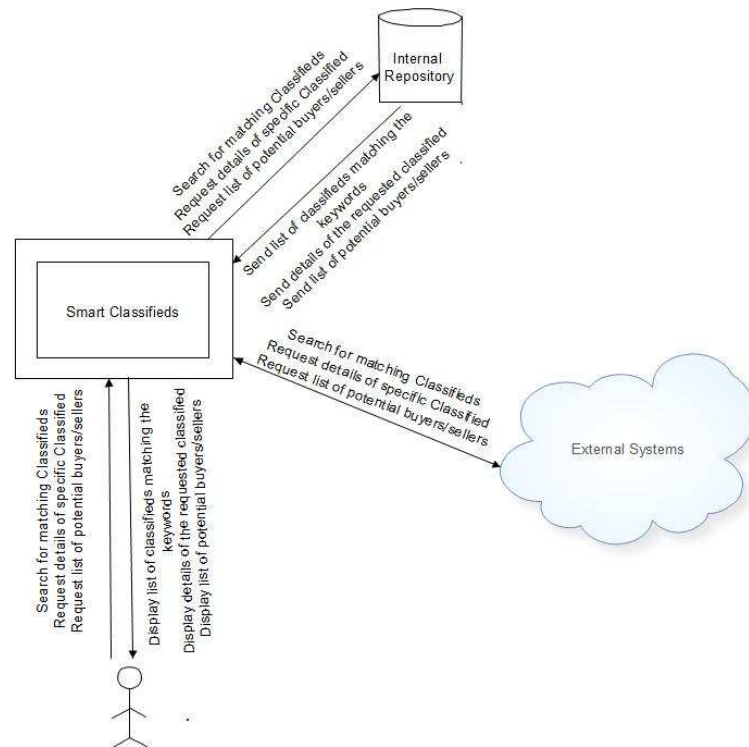
- List of classifieds matching the given search
- Details of a specific Classified
- List of interested users for a specific classified

The ability to connect the advertiser and the interested audience may also be implemented.

2.3 User Classes and Characteristics

The application should cater the needs of the following three User classes.

1. **Advertisers** interested in posting advertisement in the form of classifieds. They should be able to add new classified to any category and should be able to view the potential audiences for that particular classified.
2. **Audiences** who are interested in buying or selling or getting any information regarding some product categories. They can search through the classifieds with keywords and can view the details of a particular classified.
3. **External System** similar to this application interested in getting details about the classifieds and getting the list of audiences interested in a specific product. They can query the system to get the mentioned data in a previously agreed format.



2.4 Operating Environment

The application will be built in php and so it is portable across Operating systems where a php server is available. For the purpose of maintaining the data, MySQL is used as the DBMS.

As most of the work relies on web semantics, web 3.0 technologies OWL, RDF are used as part of transferring the data.

The version control for the project has been maintained at the svn server at the college at 192.168.25.51/home/mt2009036/dm/sc

2.5 Design and Implementation Constraints

As the system needs to interpret the data from external system it is essential that the data transferred should be in a pre-agreed format.

2.6 User Documentation

The user documentation will be in the form of online tutorials and help pages for different features.

2.7 Assumptions and Dependencies

The system is partially dependent on the external system which provides data. There is only one administrator to the system who can add new external system to which requests can be sent and who can request back.

3. System Features

3.1 Search and View Classified

3.1.1 Description and Priority

The “Search and View” classified component allows the audience to search the classified using some keyword and list the classifieds if they match the search. After the list of classifieds matching the search is obtained, the audience can view those list of classifieds only when they are registered users. This is of **High Priority** because, only when the audience can search and view the classifieds, they can either buy or sell the different products.

3.1.2 Stimulus/Response Sequences

- Audience views the classified.
- They can search for different product categories.
- They should register themselves in order to buy or sell products.
- System should authenticate them.

- If the audience are registered, a list of classifieds can be viewed by them.
- If they are not registered, system suggests them to register.
- They will then register and can view the list of classifieds.

3.1.3 Functional Requirements

- REQ-1: The audience should be registered.
- REQ-2: Search facility.
- REQ-3: Online Help.

3.2 Add new classified

3.2.1 Description and Priority

The Add new classified is the most important feature of the project. It helps the user to post the new classified about the product he wants to sell.

It is of High priority.

3.2.2 Stimulus/Response Sequences

The user first logs into the site and wants to add a new classified about his product then the system responds by asking him some details about the product which he wants to sell and includes it into the database and moreover it shows him who were the potential buyers for his product.

3.2.3 Functional Requirements

The system must be able to add a classified accordingly to the specifications given by the user and not to restrict him.

3.3 View Potential Audience

3.3.1 Description and Priority

This feature will help the user to view the people who can be interested in their product. The registered users can only have the privilege to view the potential buyers/sellers for their product.

Medium priority :This is of medium priority as it won't stop the people from putting their product for sale. Though in the case of buyers viewing the sellers is of utmost importance so it can be of high priority in that case.

3.3.2 Stimulus/Response Sequences

The users, while adding the classified, can view the potential audiences (buyers/sellers) for their own information.

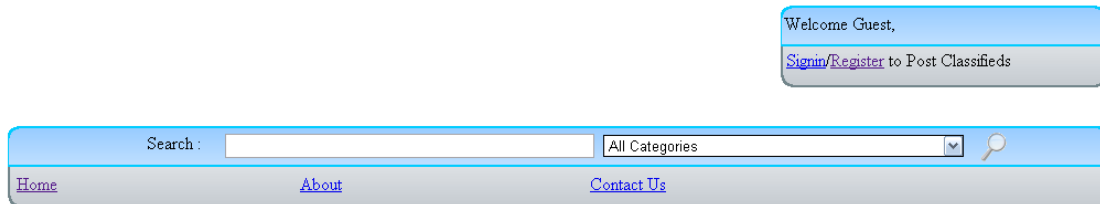
3.3.3 Functional Requirements

The users must be registered before they can view the intended audience for their product. The feature should produce a list showing the various people who can be interested for their product/s.

4. External Interface Requirements

4.1 User Interfaces

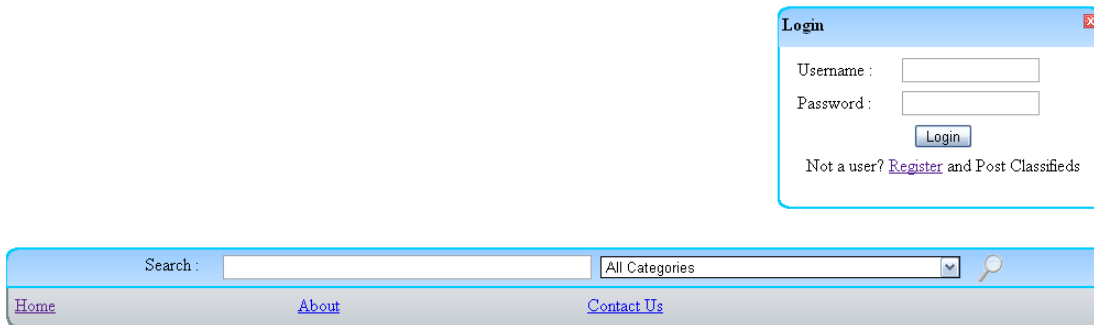
The product will be a web client browsed using a standard browser for human users. And for external system all interactions will be only through data transfer using rdf and other web semantics.



Home Page with Search

The screenshot shows a web interface header. On the right, a blue box contains the text "Welcome Guest," and a link "Signin/Register to Post Classifieds". Below this is a search bar with the text "Search :", a text input field, a dropdown menu labeled "All Categories", and a magnifying glass icon. At the bottom of the header, there are three links: "Home", "About", and "Contact Us".

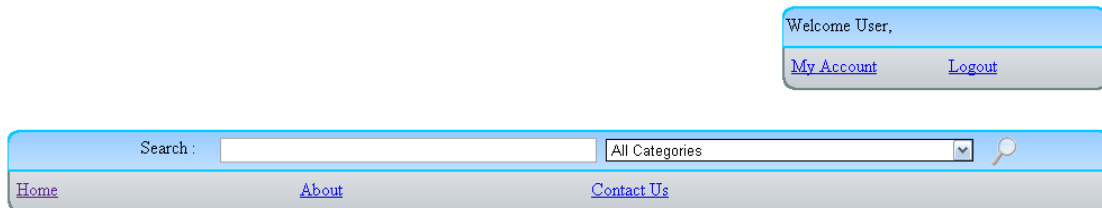
Home Page with Search



Login in Home Page

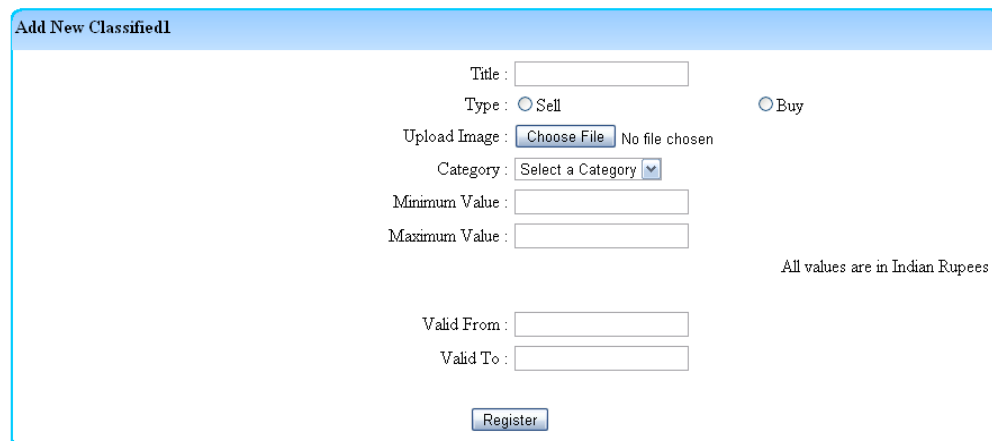
The screenshot shows the same header as above, but with a "Login" modal box open on the right. The modal has a title "Login" and a close button. It contains fields for "Username :" and "Password :", a "Login" button, and a link "Not a user? Register and Post Classifieds".

Login in Home Page



User Account Page

The screenshot shows the same header as above, but with a blue box on the right containing the text "Welcome User," and two links: "My Account" and "Logout".



Add New Classified

The screenshot shows a form titled "Add New Classified". It contains the following fields and controls:

- Title :
- Type : ☐ Sell ☐ Buy
- Upload Image : No file chosen
- Category :
- Minimum Value :
- Maximum Value :
- Valid From :
- Valid To :
-

All values are in Indian Rupees

Add Classified

New User Registration

Username :

Password :

Confirm Password :

Email Id :

Confirm Email Id :

Name :

Address :

Line 1:

Line 2 :

City :

State :

Country :

Select a Country

Pin/Zip Code :

Phone Number :

☐ I agree to the terms & Conditions of the site

Register

User Register

Motorola v3i for sale .Sell



Brand : Motorola

Form Factor : Flip

Model : v3i

Height : 5

Units : Inches

Width : 3.5

Weight (In Grams) : 20

Minimum Value : 5000

Maximum Value : 6000

Valid From : 2010-04-14

Valid To : 2010-05-22

View Classified

4.2 Hardware Interfaces

This product is implemented in a hardware-independent fashion and should not rely on any particular hardware interfaces.

4.3 Software Interfaces

As in server side, the software interfaces necessary will be a php server and a mysql DBMS whereas the client will just need a web browser to view the pages.

4.4 Communications Interfaces

The system relies on the pre-agreed meta-data in which data transfers happen across external systems. The communications happens between the different systems using http request and response.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

Performance requirements are :

- 1. The PCs used must be at least Pentium 4 machines so that they can give optimum performance of the product.*
- 2. The maximum response time for searching a product will be 1 minute.*
- 3. Works for medium size information databases*
- 4. Should not be overloaded*

5.2 Safety Requirements

None

5.3 Security Requirements

Every user who wants to post a classified, view details of an existing classified or get a list of potential buyers/sellers must register with the website with a user name and password. These details will be required again for a returning registered user for login. Any external system trying to get information from the internal repository about the list of classifieds, details of a specific classified or list of buyers/sellers must also be authenticated before providing information in the pre-agreed format.

5.4 Software Quality Attributes

- 1. Usability: The system must meet users' usability expectations. The user interface must be easy to use so that the users can get the job done using simple procedure and a few steps.*
- 2. Availability: Users must be able to access the application anytime. Also, the external system should be able to query and get results whenever it needs data from the internal repository.*
- 3. Scalability: The system must be capable of growing quickly in terms of how many users access or use the services of the system which increases the amount of data being stored.*
- 4. Maintainability: Users must have immediate access to maintenance updates- both small changes(such as changing a label on a button) and other critical upgrades.*
- 5. Reliability: The system must be precise in the list of classifieds searched for, must give the exact details of the specific classified, must provide information about potential*

buyers/sellers using semantic web technologies to both end users and the external system when the respective information is requested.

6. *Portability and Interoperability: The system must not depend on the type of browsers or platforms being used by the end users and also on the type of external system requesting the services.*

6. Other Requirements

As a enhancement to the system, an option can be added for connecting the advertisers and the interested audiences. This pose the challenge of secure communication between users across the system.

Appendix A: Glossary

These are some of the key abbreviations used in this document.

<i>rdf</i>	–	<i>Resource Description Framework</i>
<i>owl</i>	-	<i>Web Ontology Language</i>
<i>xml</i>	-	<i>eXtensible Markup Language</i>

Appendix B: Analysis Models

