
Software Requirements Specification

for

e-bid

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1. Introduction

1.1 Purpose

This Software Requirements Specification provides a complete description of all the functions and specifications of ‘e-bid ‘ - a web application for online auction.

1.2 Document Conventions

At the end of the document a glossary is provided for reference of key words.

1.3 Intended Audience and Reading Suggestions

The remainder of this document is two chapters, the first providing a full description of the project for the users of the application. It lists all the functions performed by the system. The final chapter concerns details of each of the system functions and actions in full for the software developers’ assistance. These two sections are cross-referenced by topic; to increase understanding by both groups involved.

1.4 References

“Software Engineering – A Practitioner’s Approach “by Roger S Pressman

“Software Engineering “by Ian Sommerville

“Joel Murachs” guide on jsp and java servelet programming.

1.5 Project Scope

E-bid will be designed to be hosted on any jsp enabled web server (ex apache tomcat) and allow new user to register and once registered allows them to participate in online auction, sell their articles or buy one. They will also be able to search for article by their preferences and a channel will be provided for users to discuss online about the articles available. The data will be stored in MySQL database.

2. Overall Description

2.1 Product Perspective

e-bid will be web application for auction of any articles which allows registered users to bid and buy articles. It not only allows user to buy but also allows users to sell their article. e-Bid encompasses numerous files and information from the article database and buyer/seller database . This system will be completely web-based, linking e-bid to its users via a standard web browser. An Internet connection is necessary to access the system.



Figure 1 System Design

e-bid web site will be operated on a jsp enabled webserver like tomcat . The ebid users will interact with the application which inturn will fetch information from the MySQL Database through JdbcOdbc connectivity .

2.2 Product Features

- ✓ User Registration
- ✓ Sellers post article for auction
- ✓ Bidding duration is set by the seller
- ✓ Buyers bid on articles for buying , highest bidder wins
- ✓ Mobile Bidding
- ✓ Live Auction
- ✓ Direct Channel between buyer and seller.
- ✓ Authentication of buyer and sellers
- ✓ Community forum for buyers/sellers.
- ✓ Advertisement Support.
- ✓ Moderator for the community.
- ✓ Wide Categorization of articles
- ✓ Basic and advance search based on different parameters.
- ✓ RSS Syndication of the site.
- ✓ Online FAQ help.
- ✓ 24/7 customer support
- ✓ Secured Transaction Management.

2.3 User Classes and Characteristics

The expected users of the system based on frequency of usage is

1. One Time visitors
2. Occasional Visitors
3. Regular buyers/sellers
4. Regular forum users

Based on privilege

1. Guest User
2. Registered User
3. Webmaster
4. Customer support staff.

2.4 Operating Environment

Software Requirements

- Operating System: Windows NT or higher
- Web Server: Apache Tomcat 5.0
- Database: MySQL 4.0
- Connectivity: MySQL Odbc Driver 3.51
- Cell Phone Manager 3.1
- Code standard
 - Static pages using Microsoft Front Page 2003/ Macromedia Dreamweaver 2004 MX
 - The forms will be done in JSP using Macromedia Dreamweaver 2004 MX

Hardware Specification

- Processor: x86 family
- Memory: 512MB or higher
- GSM Mobile phone

2.5 Design and Implementation Constraints

- ❖ Due to high cost involved in interfacing with a gsm mobile phone for sending out confirmation messages the application will be limited to accept confirmation messages from users for confirmation request code received in their mail.
- ❖ Considering the cost involved in 3rd party validation of credit card numbers the validation is done by simple validation mechanism integrated into the system.
- ❖ In the view of maintenance and investment factors involved in having a separate server for live auction ,the same web server will be used for live auction

2.6 User Documentation

A **frequently asked question (FAQ)** page will be available for the user. Apart from this **customer support system** will also be available.

2.7 Assumptions and Dependencies

- This application uses Cell Phone Manager for managing the mobile bidding feature hence the mobile phone which can be interfaced with the server will be limited to the phones supported the cell phone manager. Also this 3rd party program needs to be running on the server.
- JSP upload component used will limit the upload bandwidth and maximum size of uploads by users.
- The application does not deal with advertisement charges and its transaction and any subsequent legal issues out of it.
- RSS 2.0 specifications will be only be used.
- The application will not be responsible for shipping and transport of the articles. It is left to the buyer and seller of the articles.
- It is assumed that seller posts the article to appropriate category. Article -Category validation is not done.

3. System Features

The following are the major features provided by the system.

3.1 User Registration

3.1.1 Description and Priority

This allows a user to be a member of e-bid and enables him to sell or bid of items and participate in the community forum. This is a essential part of the system of high priority as it adds new customer to the buyers /sellers community.

3.1.2 Stimulus/Response Sequences (Functional requirement)

1. The user selects the 'sign up 'link to get the registration form and after following the instruction fills in the required information to create his/her profile.
2. Client side validation will be done for checking provided information.
3. The user will be asked for a login and password
4. After client side validation for uniqueness a activation link will be sent by mail.
5. On activation the user is now registered to e-bid

3.2 Selling

3.2.1 Description and Priority

Here the registered users can post their articles for bidding .Its a essential part of the project.

3.2.2 Stimulus/Response Sequences (Functional requirement)

1. The seller is authenticated (ref 3.7)
2. Article description form is provided to the seller .A snapshot of the article may also be uploaded. The category of the article needs to be selected. The description may include minimum bid value, time for bid and other article characteristics.
3. On client side validation the database of items for bidding will be updated.
4. RSS feed for the category will also be updated.

3.3 Searching

3.2.1 Description and priority

Any user can search for article based on category, cost and other parameters .This will be the top priority module as it is very essential for a prospective buyer to find the article he/she is looking for .The search will be of two type basic and advance search

3.2.2 Stimulus/Response Sequences (Functional requirement)

1. Any user will be selecting either basic or advance search.
2. If the user selects basic search, the search will be performed on the product and category. This is for users who are not very particular about the product features.
3. If the user selects advance search, he/she will be presented with form to fill in the advance features of the product like vendor, model, color etc. The search will be searched on these preferences and search results will be displayed.

3.4 Bidding and Buying

3.4.1 Description and Priority

The buyers will be able to bid on any item available for bidding .This is core part of this auction web application.

3.4.2 Stimulus/Response Sequences(Functional requirement)

1. The buyer searches the item to bid from search option.(ref 3.3)
2. The buyer is authenticated for his first bid on a item and the item is added to his bidding list (ref 3.7)
3. For subsequent bids, he selects the item he wants to bid from the list of items he is currently bidding and updates his bid .

3.5 Mobile Bidding

3.5.1 Description and priority

Users with cell phone can bid for article using the article id. This is a optional but useful module of the system.

3.5.2 Stimulus/Response Sequences (Functional requirement)

1. User will be sending a message to the server with a particular format. The format is Tbd.
2. The server will interpret the message and update the database based on the bid value.

3.6 Live Auction

3.6.1 Description and priority

This module will allow seller to set a start time of the auction and will be a simulation of real auction scenario. The seller will be interacting with the bidders. This is an optional component and left to the seller's discretion.

3.6.2 Stimulus/Response Sequences(Functional requirement)

1. The seller selects the live auction option while selling an item(ref 3.2)
2. The live auction time will be set.
3. Buyers enter the live auction using 'live auction link'.
4. Buyers select the live auction they are interested in from the currently running live auctions.
5. The buyer is authenticated before entering the live auction.
6. Now they bid their values along with interaction with the seller

3.7 Authentication of buyers/sellers

3.7.1 Description and priority

The seller is authenticated before each article is posted for selling. The buyer is authenticated before he bids. The authentication is done through credit card or e-mail/mobile confirmation.

3.7.2 Stimulus/Response Sequences(Functional requirement)

1. The buyer or seller has to select the mode of authentication.
2. If the mode is credit card number it's verified using suitable technique.
(TBD).

3. If the mode is email/mobile then an email is sent with a secret code which the user has to message back to the server in a particular format (TBD)
4. On receipt of the message the user is authenticated.

3.8 Community forum for buyers/sellers

3.8.1 Description and priority

This is a forum for the buyers and sellers to discuss about the current articles on bid. Also the buyer's community can request for new items which are not in bidding list.

3.8.2 Stimulus/Response Sequences(Functional requirement)

1. The user logs into the forum using his login name and password
2. He selects the appropriate community and view and post contents
3. The forum moderator keeps monitoring the forum activities

3.9 RSS syndication of the site

3.9.1 Description and priority

The rss feeds based on the category which is updated automatically will be available and the users can subscribe to the feed by their taste using any rss reader. Apart from this a general rss feed for the site will be available which is updated by web master. This is an optional feature.

3.9.2 Stimulus/Response Sequences(Functional requirement)

1. When the seller post an article for sale, based on category of the article its rss feed is updated automatically.

3.10 24/7 Customer Support

3.10.1 Description and priority

This will allow the users to send in their queries to the customer support system. Designated staff for the Customer support system will answer to the queries. This is optional part and is dependent on the availability of extra staff.

3.10.2 Stimulus/Response Sequences(Functional requirement)

1. The user opens the customer support link to send in their query.
2. The operator on the customer support system replies to the queries.

Glossary

Term	Definition
Html	Hyper text markup language
QA	Quality assurance
SCMP	Software Configuration Management Plan
SDD	Software Design Document
SEI	Software Engineering Institute, Pittsburgh, Pa
SQAP	Software Quality Assurance Plan
SRS	Software Requirements Specification

Tbd	To be decided
Tbn	To be named
Web Site	A place on the world wide web
Tomcat	Apache Jakarta JSP enabled HTTP web server
JSP	Java Server Pages
MySql	Open Source Database Server