

System Requirement Specification

For

www.aucjunction.com



Submitted To:

Shop E Met

Submitted By: **Idaksh Technologies**



Confidentiality

This document is being submitted to SHOP E Metwith the explicit understanding that the contents would not be divulged to any third party without prior written consent from Idaksh Technologies



PROJECT CONTROL

Project Code: ID ONLINE E MET001 **Project Name:** Shop E Met Auction System

Location: BANGALORE

Project Manager / Email ID: Deep KiranSalian. kiran@idaksh.in Quality Co-coordinator / Email ID: Pramod. pramod@idaksh.in

DOCUMENT CONTROL

Version	Date of	Description	Reason for	Affected	Approved By
	Revision	for	Change	Sections	
		Change			
1.0	01-04-2020	Initial Draft		All	

REFERENCE DOCUMENTS

- 1. http://www.google.com
- 2. https://www.matexnet.com/index.aspx
- 3. https://www.mstcecommerce.com/auctionhome/index_new.jsp



INTRODUCTION:

The "Shop E Met Auction System" is developed to upload material related information such as scrape items with inspection date and auction date, later buyers can able to bid those items on specified auction date, there will be manual bid amount and automatic bid amount. Every buyer will be required to pay EMD amount before start bidding on particular materials. Only pe paidBid EMD Amount buyers can able to participate in bidding auction.

ONLINE AUCTIONS

Emergence of the Internet has changed how people buy and sell goods. Even new types of electronic marketplaces have been developed to create more efficient markets. Online Auctions have been the one of the most successful electronic markets. Success of theonline auctions comes from the capabilities it gives to both buyers and seller. As abuyer you can bid on large number of items from different sources and you have the potential to find goods in lower prices. As a seller you reach great number of potential buyers. When you put your items for auctions to the online market, you eliminate the cost of time and place of the offline market.

Auctions

Auction is a trading process, where buyers bid to the goods or services that seller provides. At the end of the process highest bidder wins. Auctions are important for practical, empirical, and theoretical reasons. First, they are practically important because huge amount of goods are sold through auctions. Auctions generally used in markets such as antique business, collectibles, wine sales, real estate, second hand goods, and radio spectrum auctions.

In general, complete trading process of any online auction has the following basic steps

- 1. **Initial buyer and seller registration**: In this step authentication of the parties are done.
- 2. **Setting up a particular auction event:** Creating the goods, describing them on the site and setting auction rules and starting the auction.
- 3. **Bidding**: Collecting all the bids, controlling the bid validity is done until bidding period is over.
- 4. **Evaluation of bids, closing the auction**: Apply the auction closing rules and determine the winners of the bids, notify winners and losers.
- 5. **Trade settlement:** Payment and good delivery are realized at this step.



- 6. **Identity theft and unauthorized access:** If there are weak passwords set user accounts in the electronic auctions, or the system is not well coded that it allows unauthorized operations to be done, than such person can mess with the users, bids and auctions.
- 7. **Efficiency of bidding:** The computation of determining a winner bid and verifying that should be practical.
- 8. **Sealed-Bid Combinatorial Auctions:** They are the auctions where each bidder is only aware of his bids. After bidding process is completed and winner is determined, it can be announced. Hiding the bids is necessary during bidding time.
- 9. **Single-Unit Combinatorial Auctions:** are the auctions where amount of the each individual item is one. For example if there are five identical items, they must be placed to the auction as different items which have the same product information.

SCOPE:

- 1. Move your purchasing activities to the cloud.
- 2. We provide e-Auction event management service.
- 3. We offer custom solutions that meet your needs.
- 4. Access to our own validated vendor database for your purchase events.
- 5. Payment Gateway enabled for easier transactions. It is fast and user friendly.

PROJECT PLAN:

The main focus of the project is to create interface for seller to move their scrape items to online and buyers can buy material in real time with e-auction system.

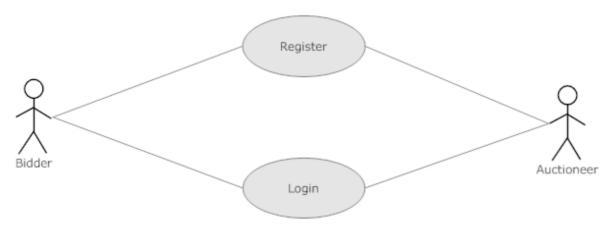
Project planning was done to define the scope of the project, assess risks and estimate and schedule project activities and thereby lay the foundation for the execution, monitoring and control of the project.

METHODOLOGY:

Our main aim is to create market place for seller to sell their scrape items eg Battery, steel etc and buyer can buy their required items through e auction system.

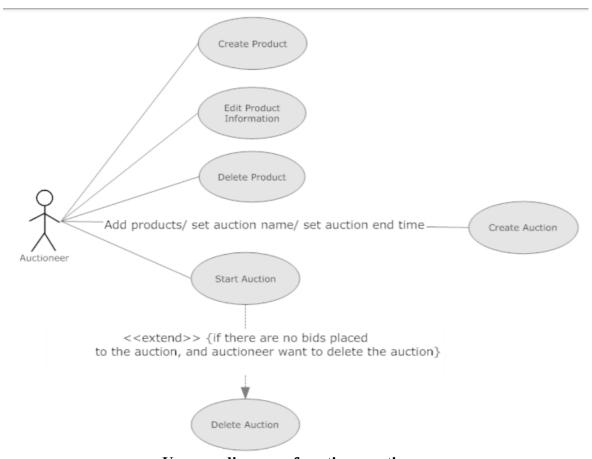


USE CASE DIAGRAM:



Use case diagram of user authentication

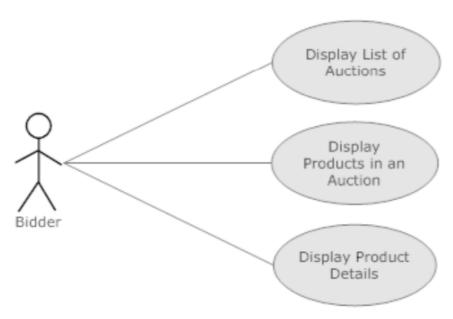
Setting up a particular auction event: Below figure shows the phase where an Auctioneer creates, edits, and deletes products that will be put to an auction. Auctioneer also creates and starts an auction. If no bids are placed, auctioneer can delete an auction.



Use case diagram of auction creation process



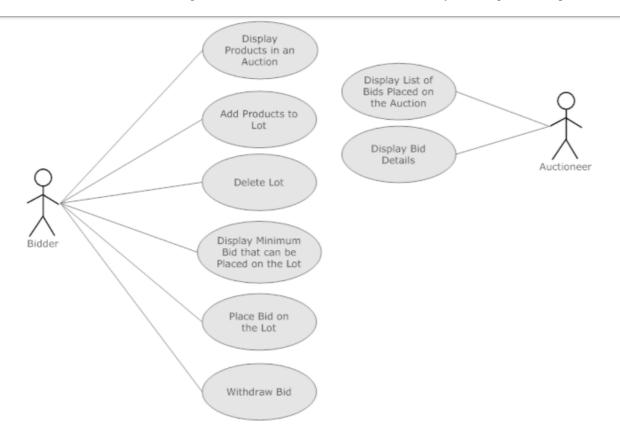
Scheduling and advertising: Shop E-Met lists the auctions which are about to end soon. Below Figure shows how upcoming auctions are advertised in Shop E-Met.



Use case diagram of advertising upcoming auctions

Bidding: Below Figure shows the bidding process in Shop E-Met. This is the period where bidding to a specific auction is available. Agents can perform these actions if and only if that bidding period is still continuing.

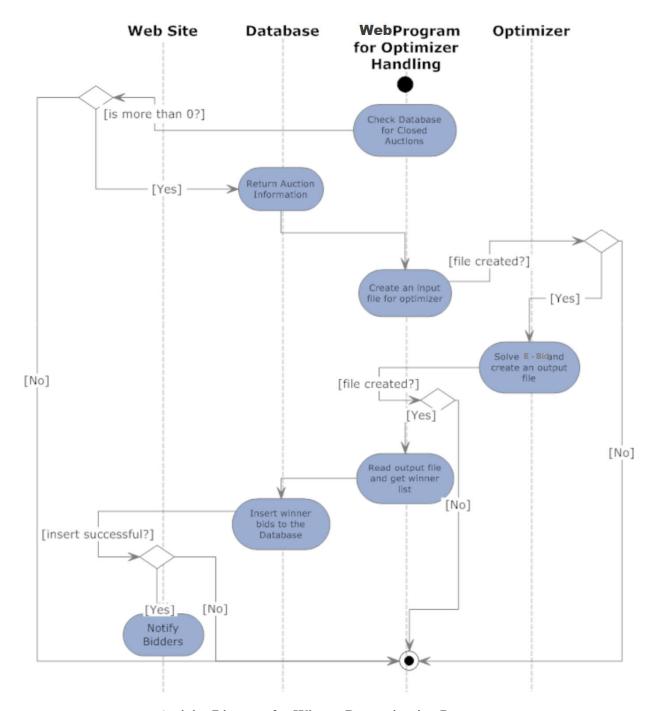




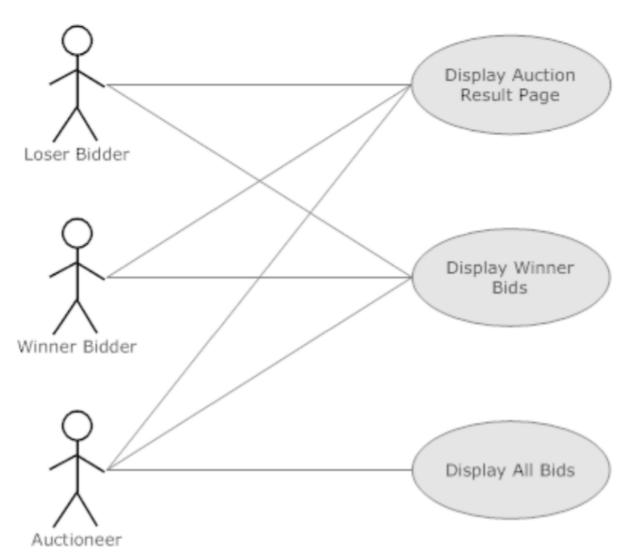
Use case diagram of bidding process

Evaluation of bids, closing the auction: Auction bidding time is ended and winner determination is started. This process will be handled on the background and the results are announced. Figure Below shows how E-Met solver program interacts with the remaining components of the platform. Figure Below displays the winner and loser bidders' actions after an auction is finished.

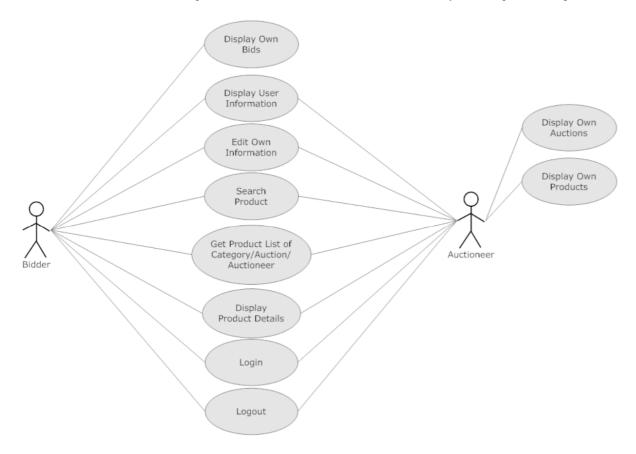




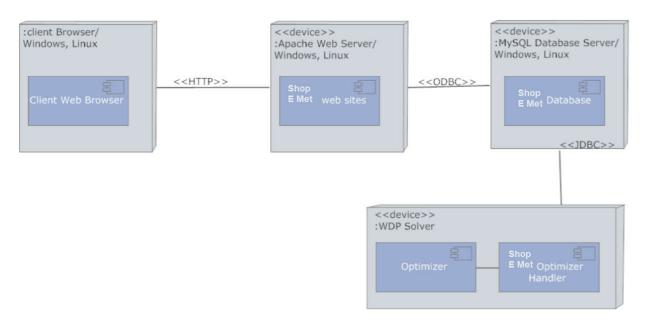
Activity Diagram for Winner Determination Process



Use case diagram of auction results

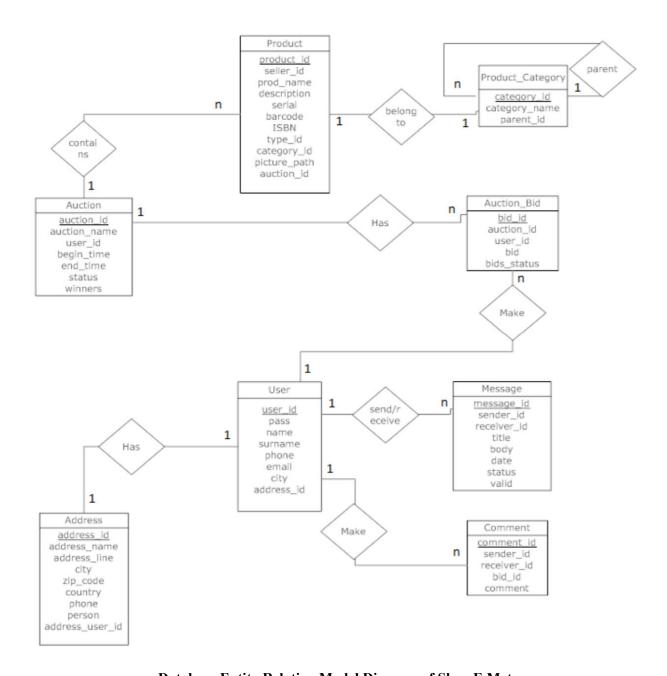


Use case diagram of general system usage



Deployment Diagram of the system





Database Entity Relation Model Diagram of Shop E Met

Database Design: Above Figureshows the table structure and their relations in the database designed for Shop E Met. The database tables are driven from the real objects of the system, like users of the system, auctions and bids. Normally multi-values attributes are not stored in single column of a table. But in our database the winners of an auction and bids are multi-valued attributes.

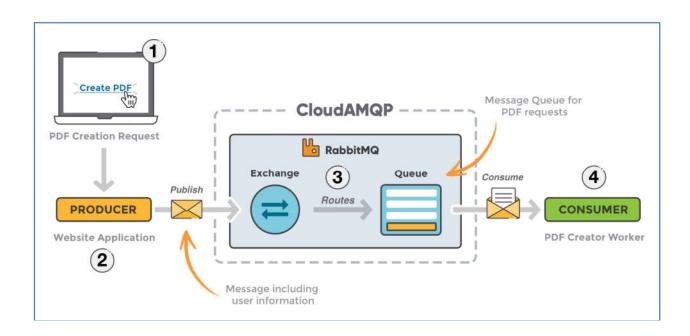


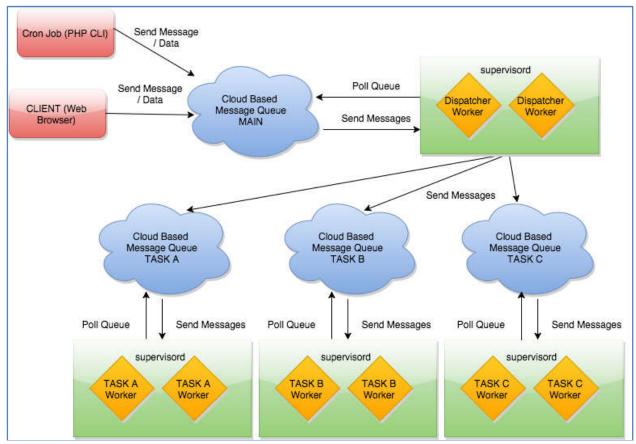
All technologies used in Shop E -Met are open source. These open source technologies are free and independent from a specific operating system. These properties enable the deployment and distribution of the Shop Emet to most know operating systems, without any extra cost or effort.

The web component is written in PHP, we used Apache web server, but it can be deployed on any web server supporting PHP.

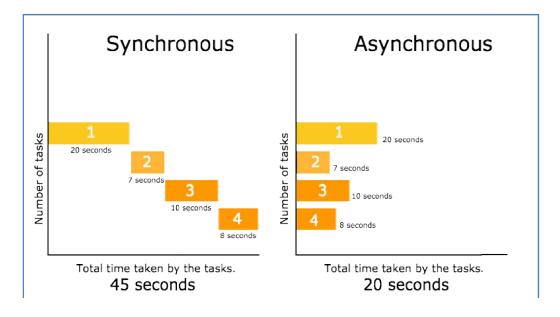
As a database management system MySql, which has multi platform support, is chosen. Client side only needs a web browser to run the system. No additional program need to be installed on the client computer to use the SHOP EMET. Clients won't know the operations held on the server side. In order to use SHOP EMET your computer should have proper installations of the following programs:

- Apache web server
- MySql Database Management System
- Java Software Development Kit
- Message Queuing System
- Asynchronous architecture for Bidding
- Web API
- Payment Gateway
- SMS and Email Gateway
- Bulk Processing Actions
- Database Security Encryption
- Password Encryption



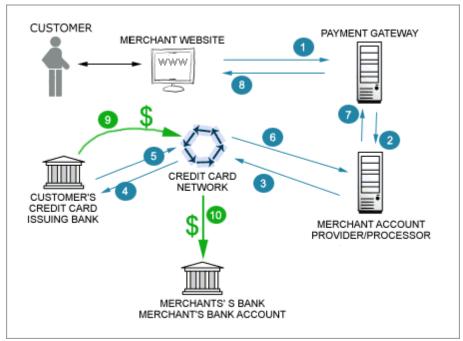


Example diagram for Message Queuing - Realtime Bidding Process

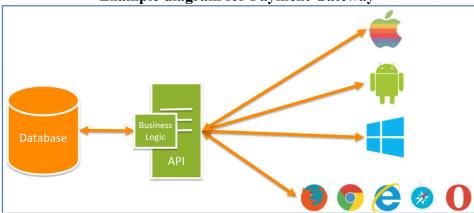


Example diagram for Asynchronous



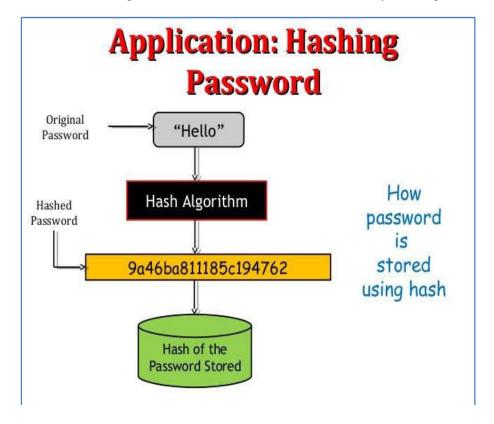


Example diagram for Payment Gateway

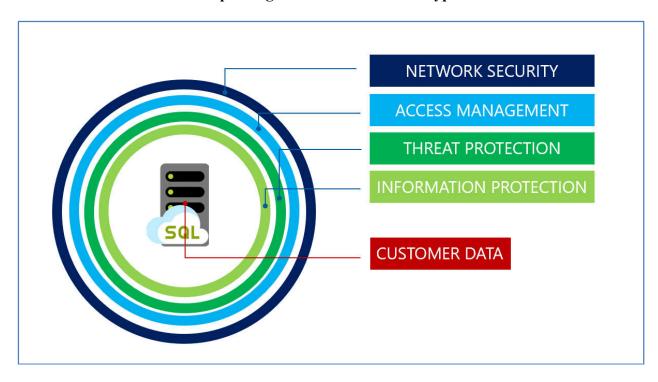


Example diagram for Web API





Example diagram for Password Encryption



Example diagram for Database Security



Performance of the System

Performance is either throughput or response time — whichever matters more to you (in web applications, response time is more popular). It can sometimes be difficult to talk about performance when a technique improves throughput but decreases response time, so it's best to use the more precise term. From a user's perspective, responsiveness may be more important than response time, so improving responsiveness at a cost of response time or throughput will increase performance.

Technical Risks and Solutions

- 1. Anonymity of the bidders and the bids.
- 2. Deleting, editing other peoples products, auctions or user information.
- 3. Network errors and site unavailability.
- 4. Problems during payment, loss of payments, over paying.
- 5. Error occurrence or non-optimality of the solution in winner determination and causing seller money loss.
- 6. Scalability
- 7. Performance issues due to concurrent solver running on a single machine.

Forward Auctioning Concept

When you are selling your asset, then all you need is the best possible price for it in the shortest time. And, this requires reaching out to as many buyers as possible. So, if you are worried about searching for prospective bidders, Shop Emet Online Auction provides forward e-auctions for all range of items. All you need to do is, connect with us the soonest.

AUCTION NO	DATE	AUC. TYPE	COMPANY NAME	PARTICULARS
A-20-1440	Date will be announced soon	Tender cum e_Auction	Click To View	Sale of BIW-Assets, Body Shop Dismantling Machinery Items
A-20-1470	03-04-2020	e_Auction	Click To View	Sale of GI Purlin
A-20-1456	01-04-2020	e_Auction	Click To View	Sale of plastic, TMT, MS scrap, SS scrap
A-20-1464	01-04-2020	e_Auction	Click To View	HTGS wire scrap,Obsolete Items
A-20-1474	01-04-2020	e_Auction	Click To View	sale of UPS, Vacuum Pump, Motor, Cooling Machine, E-Waste, VCB & APFO Pannel, Cable Winding Drum, Heat Exchanger, SS Scrap

E - tender

Shop Emet offers e-tender solutions keeping in view delivering the best possible online tender management services. We hold expertise in carrying complex as well as large-scale tenders, be it



open, global, limited, restricted, or proprietary. Our e-tender management system is a proven platform and has been catering to clients with top-notch assistance since years.



Website Features:

- 1. View forthcoming options: here user can check list of auctioning items without company information and download pdf.
- 2. Buyers and sellers login
- 3. Home Page
- 4. Company Information
- 5. Contact Details
- 6. Registration

Post Login Screensfor Buyers:

- 1. Update Profile Information.
- 2. View forthcoming auctions
- 3. View live auctions
- 4. View detailed auctions and download PDF.
- 5. Manual Bidding Auctions.
- 6. Automatic bidding auctions
- 7. View detailed bidding data.
- 8. Reports:
 - a. Occupied bidding products
 - b. Lost bidding products
- 9. EMD amount pay online(Atom)

Post Login ScreensForSellers:

- 1. Update Profile Information.
- 2. View/uploadproducts
- 3. View sold products from auctions
- 4. View detailed auctions and download PDF.
- 5. View detailed bidding data.
- 6. Reports:
 - a. sold bidding products
 - b. unsold bidding products



Admin Panel

It allows admin to handle following module

- 1. **Creating Seller / Buyer Registration**: this module allows user to add seller or buyer information
- 2. Create Industry scrape category: this module allows user to add categories
- 3. Create Industry Products: this module allows user to create products
- 4. View Seller Scrape Items: this module allows user to view seller added industry items
- 5. View Forthcoming Auctions: this module allows user to view auctions list
- 6. **EMD Amount**: this module allows user to collect buyer payment
- 7. Reports
 - a. Closed Auctions list: This module allows user to check all closed auctions list
 - b. Check Bid Summary: this module allows user to check all bid amount done by buyer at auction list
 - c. Check Auction Winners: this module allows user to check auction winners related seller items.
 - d. **Highest Payer:** this module allows user to check who paid highest amount to seller item in month
 - e. **Sales Report:** this module allows user to check sales happened in a particular period
 - f. **Not sold Items after auction**: able to determine whether product is sold or not once auction is completed.
 - g. **Seller Revenue**: this module allows user to check revenue generated from each seller over a period of time from online bidding.
 - h. **Best seller**: this fetch based on highest bidding achieved based maximum number of items.
 - i. **Non performing seller**: this module allows user to check sellers who earned low revenue during period of time.
 - j. **Best Buyer**: this module allows user to check which buyers purchased most items with maximum revenue.
 - k. **Overall revenue**: this module allows user to check overall revenue gathered from auctions over a period of time.

Responsive UI Designs:

Responsive websites are websites that can be viewed on any device. Page widths, colors, links, texts, graphics, and videos all adjust automatically to fit the size and shape of whatever screen it's viewed on — from a large HD monitor to a small phone screen. With responsive website design services, you can ensure that your website features the tools and content you need to grow your organization. Your website is more than your online brand identity. As we are rapidly moving towards digitalization, people are shifting from full-sized PCs and Laptops to palm-sized smartphones. If a website is not optimized for a user who does everything on his phone, the business is at a high risk of losing a huge number of potential customers.



SystemRequirements:



TESTING

1 SYSTEM TESTING

System testing is actually a series of different test whose primary purpose is to fully exercise the computer based system. Although each test has a different purpose, our work is to verify that all system elements have been properly integrated and perform allocated functions.

During testing I tried to make sure that the product does exactly what it is supposed to do. Testing is the final verification and validation activity within the organization itself. In the testing stage, I tried to achieve the following goal: to affirm the quality of the product, to find and eliminate any residual errors from the previous stages, to validate the software as a solution to the original problem, to demonstrate the presence of all specified functionality in the product, to estimate the operational reliability of the system. During testing the major activities are concentrated on the examination and modification of the source code.

2 TESTING METHODOLIGIES

The following are the testing methodologies:



- Unit Testing
- Integration Testing
- User Acceptance Testing
- Output Testing
- Validation Testing

2.1 Unit Testing

Unit Testing focuses on verification effort on the smallest unit of software design that is the module. Unit testing exercises specific paths in a modules control structure to ensure complete coverage and maximum error detection. This test focuses on each module individually, ensuring that it functions properly as a unit. Hence the naming is Unit Testing.

2.2 Integration Testing

Integration Testing addresses the issues associated with the dual problems of verification and program constructions. After the software has been integrated as a set of high order tests are conducted. The main objective in this testing process is to take unit tested modules and builds a program structure that has been dictated by a design. The following are the types of integration testing:

2.2.1 Top-Down Integration

This method is an incremental approach to the construction of the program structure. Modules are incremented by moving downward through the control hierarchy, beginning with the main program module. The module subordinate to the main program module is incorporated into the structure in either a depth first or breadth first manner.

2.2.2 Bottom-Up Integration

This method begins the construction and testing with the modules at the lowest level in the program structure. Since the modules are integrated from the bottom up, processing required for the modules subordinated to the given level is always available and the need for the stub is eliminated.

2.3 User Acceptance Testing

User Acceptance of a system is the key factor for the success of any system. The system under consideration is tested for user acceptance by constantly keeping in touch with the prospective system user at time of developing and making changes where ever required is done in regard to the following point:

- Input Screen Design
- User Acceptance Testing



- Menu Driven System
- Output Testing

2.4 Output Testing

After performing the validation testing, the next step is output testing of the proposed system, since no system could be useful if it does not produce the required output in the specified format. Asking the users about the format required by them tests the outputs generated or displayed by the system under consideration. Hence the output format is considered in two ways- one is onscreen and another in printed format.

2.5 Validation Testing

Validation Tests are performed on the following fields:

- Text Field
- Numeric Field

2.5.1 Text Field

The text field can contain only the number of characters lesser than or equal to its size. The text fields are alphanumeric in some fields and alphabetic in other fields. Incorrect entry always flashes an error message.

2.5.2 Numeric Field

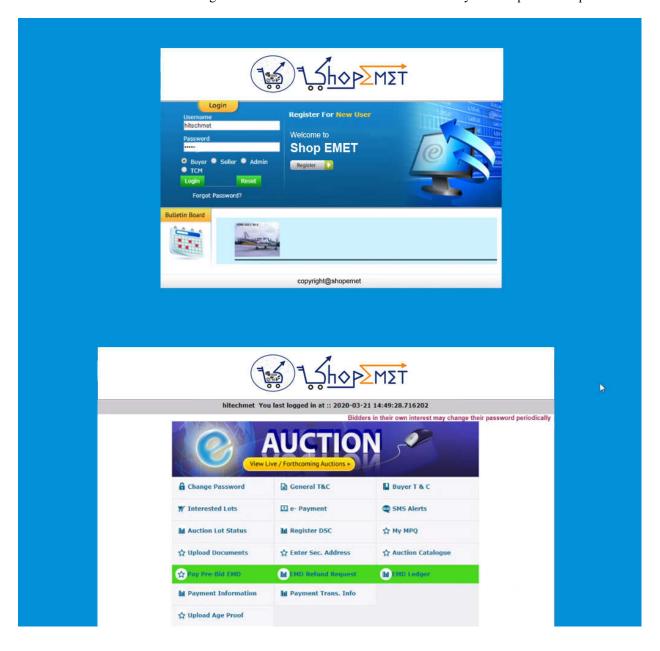
The numeric field can contain only numbers from 0 to 9. An entry of any character flashes an error message. The individual modules are checked for accuracy and what it has to perform. Each module is subjected to test run along with sample data. The individually tested modules are integrated into single system.

3 Preparation of Test Data:

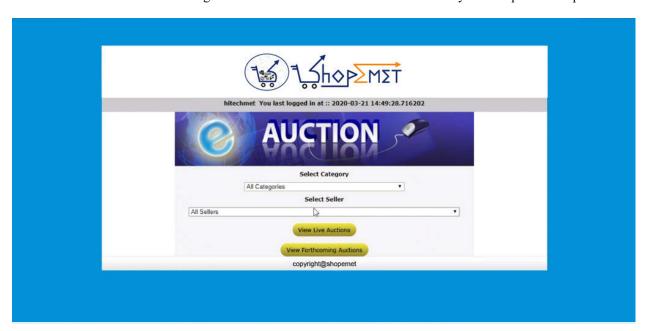
The above testing is done by taking various kinds of test data. Preparation of test data displays a vital role in the system testing. After preparing the test data in the system under study is tested using that test data. While testing the system by using test data errors are again uncovered are corrected by using above testing steps and corrections are also noted for future use.

Reference Screenshots

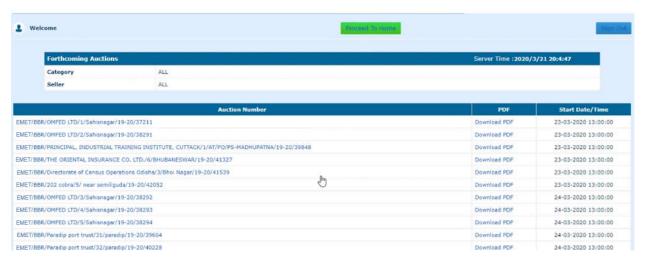


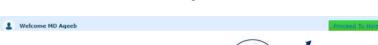










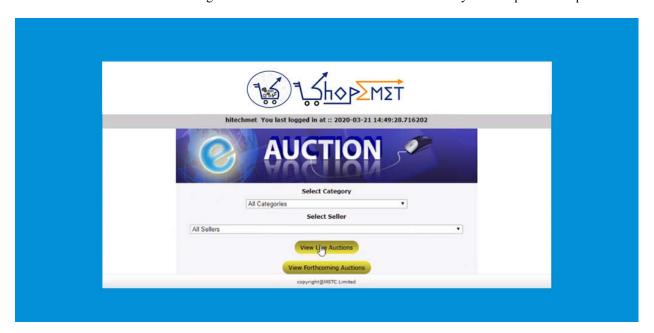


Original M/c. No 482-02 Machine Description

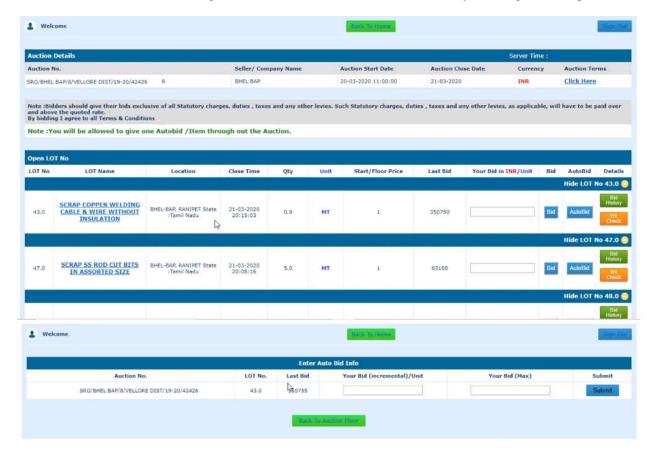
LOT No : M215

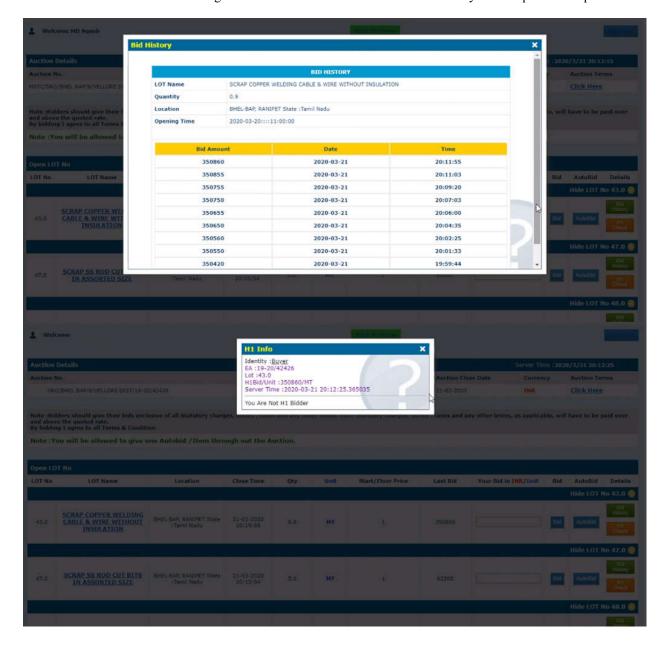








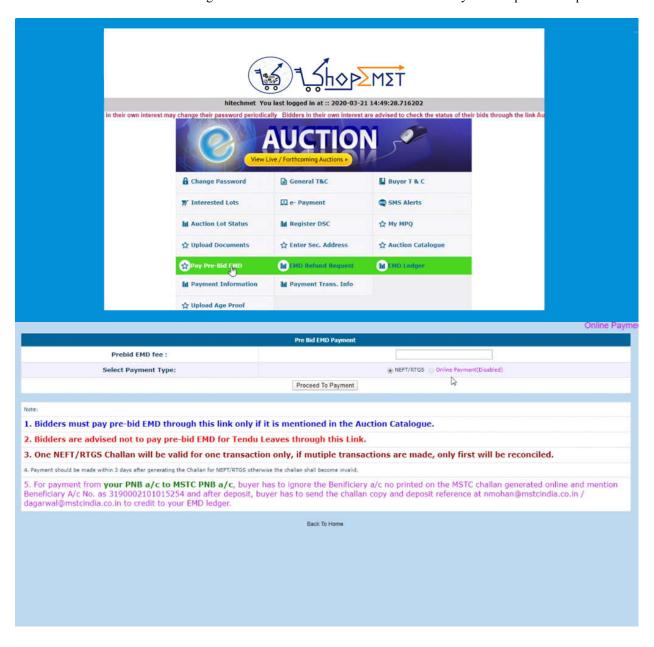




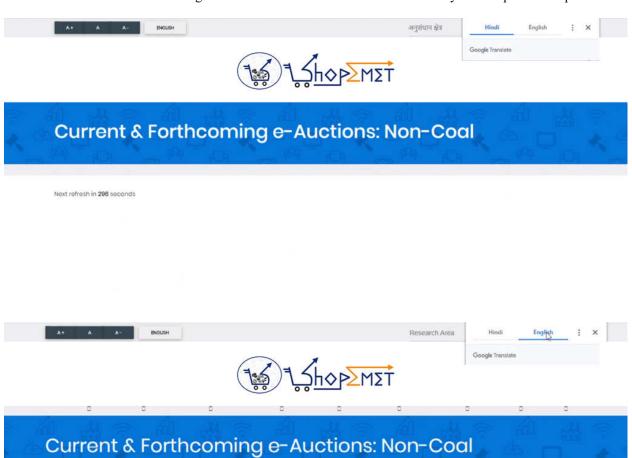








System Requirement Specification



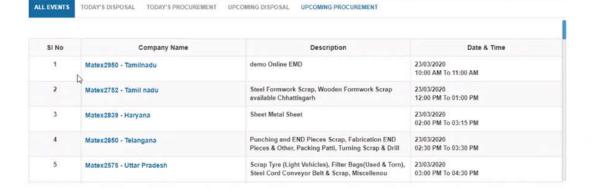
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Alerts

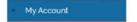
With your earlier participation pattern, the following could be of interest to you. This is only an indicative list. Please ensure to see all auctions shown in current & upcoming and participate.

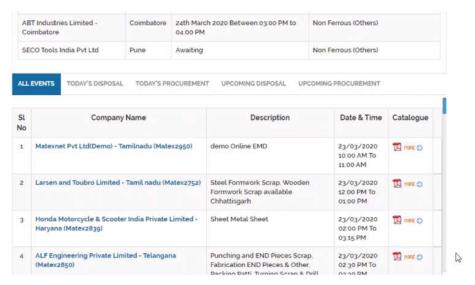
Company Name	City	Auction Date	Earlier Participated Categories - Inticative
ACC Limited - Tikaria	Amethi,	23rd March 2020 Between 03 00 PM to 04:30 PM	Non Ferrous (Others)
ABT Industries Limited - Coimbatore	Coimbatore	24th March 2020 Between 03 00 PM to 04:00 PM	Non Ferrous (Others)
SECO Tools India Pvt Ltd	Pune	Awaiting	Non Ferrous (Others)

ALL EVENTS TODAY'S DISPOSAL TODAY'S PROCUREMENT UPCOMING DISPOSAL UPCOMING PROCUREMENT

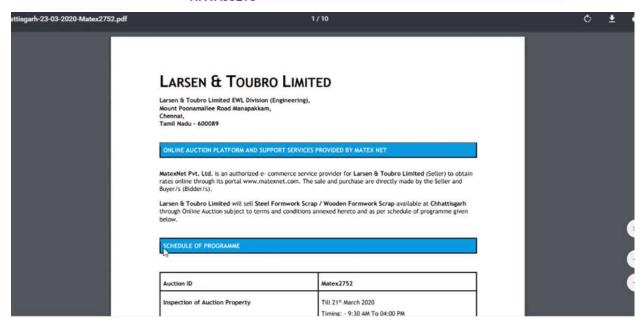


System Requirement Specification



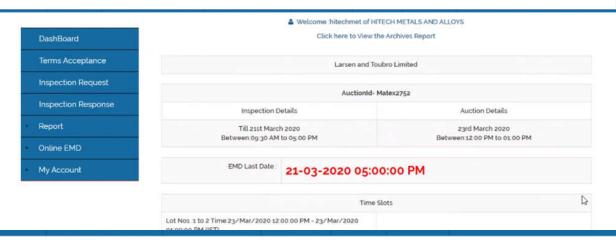


NPA ASSETS









EMD Refund

- 1 You must provide your bank account details before generating the details for EMD remittance through RTGS/NEFT/IMPS. You must upload the scanned image of the canceled cheque. Your EMD return will be processed only after verifying that the details provided by you matches with the details in the canceled cheque leaf.
- 2. If you are unsuccessful in the auction your EMD will be returned to your Bank Account as per the details provided by you. In case you are successful your EMD for the related (ot will be remitted to the Seller Company's Account.
- 3. Your user ID will be activated for participation in the auction only if the prescribed EMD amount is received in our Bank account within the prescribed date & time. MatexNet will not be responsible for delayed receipt of the EMD for whatever reasons.
- 4. Your user ID will NOT be activated if the EMD amount received in our Bank account or the Beneficiary account number is at variance with the details generated through our System / Application. In such an event, your EMD will be returned only after the auction is completed.

Terms & conditions as laid down by the auctioneer shall apply in addition. Please register & login to obtain the same.

The product description in the website may be truncated. Always please refer catalogue/sale notice/ tender document and notices during the auction for complete information.

















$Online \ E-Material \ Purchase \ Management$

System Requirement Specification



Lot No	Product Name	EMD Amount	Quantity	
1	Steel Formwork Scrap	0.00	86.60 - MT/MT	
2	Wooden Formwork Scrap :	7.500.00	15 50 - MT/MT	

PCB Lot	Online Payment	Offline Payment
---------	----------------	-----------------

Online EMD

EMD - Earnest Money Deposit

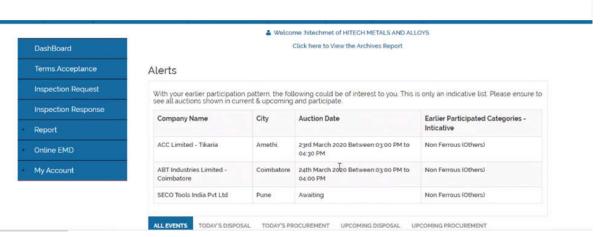
NEFT - National Electronic Fund Transfer
RTGS - Real Time Gross Settlement
PCB - Pollution Control Board

CPCB - Central Pollution Control Board

Lot Selection

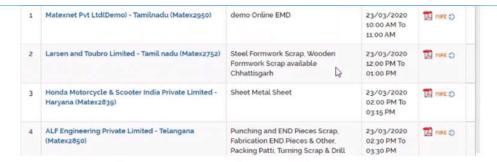
1 You can see all the lots listed under this event / Auction







System Requirement Specification

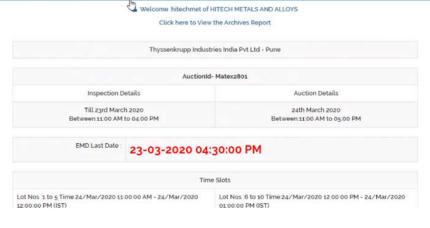


NPA ASSETS











System Requirement Specification

Lot No	Product Name	EMD Amount	Quantity
1	Scrap Corrugated/Carten boxes	20,000 00	1,100,00 - KG/KG
2	Scrap Shredded paper:	0.00	4,600.00 - KG/KG
3	Garbage scrap/Paper waste :	0.00	1,300.00 - KG/KG
4	Factory Refuse Waste:	0.00	50,000.00 - KG/KG
5	Mix Plastic Scrap	0.00	1,900.00 - KG/KG
6	Scrap Grinding Wheel:	0.00	3,400,00 - KG/KG
7	Maintenance Scrap(Electrical):	0.00	3.700.00 - KG/KG
8	Maintenance Scrap(Mechanical):	0.00	3.000.00 - KG/KG
9	Rubber Scrap.	0.00	2.500.00 - KG/KG
10	Wooden scrap.:	0.00	40,000.00 - KG/KG
11	Wooden Dust:	0.00	3.000.00 - KG/KG
12	Scrap Light MS (Waste packing material like packing patti, welding thin wires etc.);	0.00	30,000.00 - KG/KG
13	Scrap Welding Rod :	0.00	200.00 - KG/KG
14	Scrap Pieces of MS Sheet :	0.00	200.00 - KG/KG

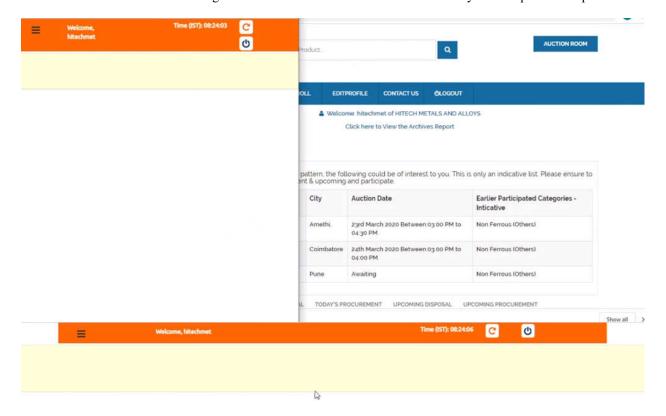




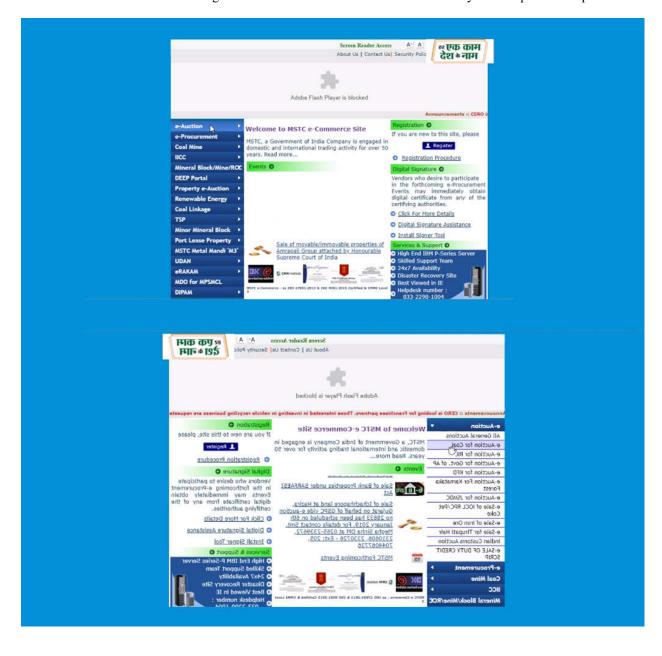
▲ Welcome hitechmet of HITECH METALS AND ALLOYS Click here to View the Archives Report Alerts With your earlier participation pattern, the following could be of interest to you. This is only an indicative list. Please ensure to see all auctions shown in current & upcoming and participate. Company Name City Auction Date Earlier Participated Categories -Inticative ACC Limited - Tikaria Amethi, 23rd March 2020 Between 03 00 PM to Non Ferrous (Others) 04:30 PM ABT Industries Limited -Coimbatore 24th March 2020 Between 03:00 PM to Non Ferrous (Others) 04:00 PM Awaiting SECO Tools India Pvt Ltd Non Ferrous (Others)

ALL EVENTS TODAY'S DISPOSAL TODAY'S PROCUREMENT UPCOMING DISPOSAL UPCOMING PROCUREMENT



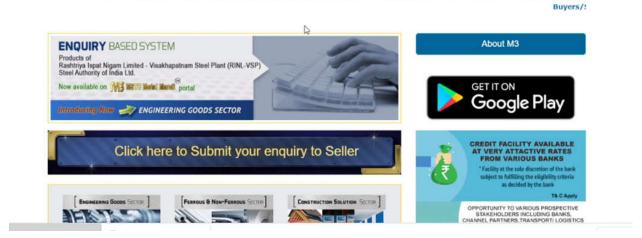


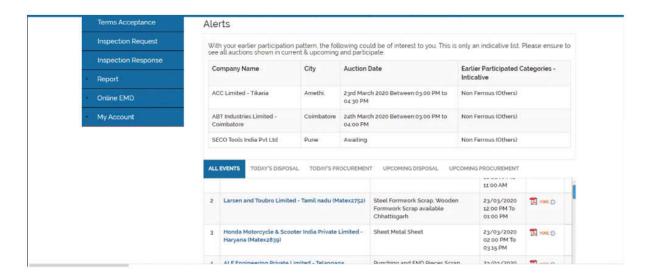


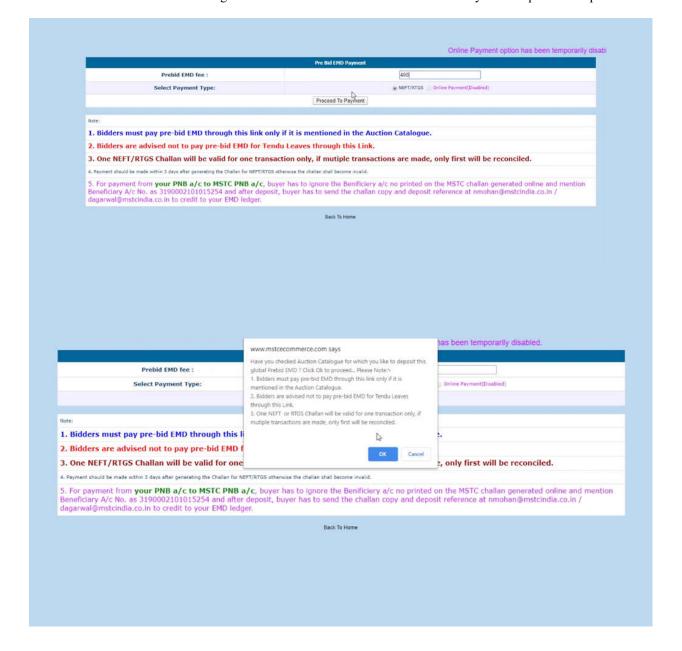












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