BLOCKCHAIN-ENABLED SECURE ELECTRONIC AUCTION PLATFORM

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ABSTRACT

Biddings are among the oldest economic institutions in place. They have been used since antiquity to sell a wide variety of goods, and their basic form has remained unchanged. In this dissertation, we explore the efficiency of common Biddings when values are interdependent-the value to a particular bidder may depend on information available only to others-and asymmetric. In this setting, it is well known that sealed-bid Biddings do not achieve efficient allocations in general since they do not allow the information held by different bidders to be shared. Typically, in a Bidding, say of the kind used to sell art, the Bidding sets a relatively low initial price. This price is then increased until only one bidder is willing to buy the object, and the exact way this is done varies. In my model a bidder who drops out at some pricecan "re-enter" at a higher price. With the invention of E-commerce technologies over the Internet the opportunity to bid from the comfort of one's own home has seen a change like never seen before. Within the span of a few short years, what may have begun as an experimental idea has grown to an immensely popular hobby, and in some cases, a means of livelihood, the online Bidding gathers tremendous response every day, all day. With the point and click of the mouse, one may bid on an item they may need or just want, and in moments they find that either they are the top bidder or someone else wants it more, and you're outbid! The excitement of a Bidding all from the comfort of home is a completely different experience. The levels of comfort may rise soon but the rules to be followed remain the same.

1.1 INTRODUCTION

Auction means Latin work, which means growth. Auction is a bid, a method of selling; Purchasing and providing services occur. The online auction system has manyother names such as e-auction and electronic auction. The client can more accurately specify the need for online auctions or online bidding. Online bidding has become morewidespread in all forms of industrial use. Not only does it have the product or goods it needs to sell, it also has the services it can offer. Due to their low cost, this spread caused the system to thrive. Preferred bidders can manage and monitor the same database. The user's data may be maintained confidentially for the validity and integrity of the contract documentation. Multiple babies can communicate very easily. This system allows multiple bids by single users. Developing a user friendly auction site where any product can be bid and providing value-added services to bidders and sellers. The world of online auctions Marketplaces allow buyers and sellers to cross geographical limits and purchase products from anywhere over the Internet . The online auction market offers consumers lower prices, greater product selectivity and greater efficiency compared to traditional online markets. Seller's choice and the product they produce make greater buyer certainty. It consists of three components: seller rating scores and seller's shilling operations. Certifications, description of product characteristics, product usage and book value. It seeks to ensure buyers product accuracy. Decision Assistance tool also provides seller ratings by using Feedback Scores. These feedbacks give previous winning bidders and evaluate online auction product

vendors. These bidders give detailed seller ratings of all aspects of the seller, and give scores for how accurate the description of the item is, how satisfied they are with the seller's communication, and how quickly the seller is shipped.

2. SOFTWARE REQUIREMENTS SPECIFICATION

A **software requirements specification** (SRS) is a description of a software system to be developed, laying out functional and non-functional requirements, and may include a set of use cases that describe interactions the users will have with the software. A basic purpose of the SRS is to bridge this communication gap between client and the developer so they have a shared vision of the software being built. An SRS establishes the bas is for agreement between the client and the supplier on what the software product will do. SRS provides a reference for validation of the final product. A high-quality SRS is a prerequisite to high-quality software and also reduces the development cost. The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyze and give an in-depth insight of the complete "Online Auction" by defining the problem statement in detail. The detailed requirements of "Online Auction" are provided in this document.

2.1 PURPOSE

This Document includes software requirements for the "Online Auction" Project. The purpose of this document is to detail the user requirements for all the functionalityin "Online Auction". This document is meant to serve as a guide to the developers andusers. The purpose of the requirement document is to specify and provide all the information required to design, develop and test the system. This document ensures that the person reading the document understands what she/he is looking for. Online Auction is the website application in where participants can bid for the products. In

online auction project that holds online auctions of various products on a website and serves sellers and bidders accordingly. The system is designed to allow users to set up their products for auctions and bidders to register and bid for various products availablefor bidding.

SCOPE

This project has following features and scopes:

- This auction website works online. The bidder and seller can participate in auctionfrom anywhere at any time through online auction.
- Those who wish to take part in bidding or sell products at the site have to register atthe site as customer. Only authenticated customers can take part in selling or in bidding.
- Customer can see the profile of the bidding history of items which are still open.Similarly the seller can see the progress of bidding.
- Auction winners and losers get an Email notification whether they won or lost the bid.

2.2 OVERVIEW

This SRS will allow for a complete understanding of what is to be expected of the "Online Auction" web application to be constructed. The clear understanding of the "Online Auction" System and its functionality will allow for end users and will be usedfor the development of the future stages of the project.

OVERALL DESCRIPTION

This section of the SRS describes all general factors of the product and its requirements. This SRS explains detailed requirements of Online Auction website application.

PRODUCT PERSPECTIVE

Current developing project is the web application project developing using PHP. This system is developed using PHP and all the record stores in the MySQL database.

PRODUCT FEATURES

This product has following features:

- Administrator or Customers of the site can login and add auction items so user can search and view details of auction items with images, product title and auction date / time.
- No registration required to view Auction product information.
- There are 2 types of users in this system: Customer and Employees. Admin and staff are the sub users comes under employee.
- Administrator can view all features of the website.

USER CLASSES AND CHARACTERISTICS

There are 2 types of users using for this system.

- **CUSTOMER:**

The Public user can view all the website features. The customer or seller need to create a account to participate in the auction website. The customer needs to login to the system for bidding.

- **EMPLOYEE:**

Employees are the website owners who manages complete website. There are two main users under the employee i.e; admin and employee. Admin has full authority of the website and employee has limited authority.

DESIGN AND IMPLEMENTATION CONSTRAINTS

The developed system should run under any platform (Unix, Linux, Mac, Windowsetc.) that contains a web browser which supports PHP, JavaScript and AJAX.

- Internet connectivity is required to send mails.
- The user who is accessing the system should be authorized.
- MySQL database is the backend of the system.
- The system needs following tables under online auction database.
- Billing
- Bidding
- Category
- Customer
- Employee
- Message
- Payment
- Product

- winners

ASSUMPTIONS AND DEPENDENCIES

- The users should have basic knowledge of the computers. They must be trained wellto handle the features provided by this system.
- Some of the details are required to be entered by the user and may not be generatedautomatically.
- Administrator is created in the system already.
- Roles and tasks are predefined.

SPECIFIC REQUIREMENTS

EXTERNAL INTERFACE REQUIREMENTS

This chapter is an outline of the inputs and outputs of the project.

USER INTERFACES

Each part of the user interface intends to be as user friendly as possible. The fonts and buttons used will be intended to be very fast and easy to load on web pages. The pages will be kept light in space so that it won't take a long time for the page to load.

HARDWARE INTERFACES

- **OPERATING SYSTEM:** Unix, Linux, Mac, Windows etc.
- **PROCESSOR:** Pentium or Higher.
- **RAM:** 312MB or Higher.14 monitor
- Keyboard and mouse

SOFTWARE INTERFACES

- **DEVELOPMENT TOOL:** PHP : Hypertext Pre-processor, JavaScript, Ajax
- **SCRIPTING SERVER:** Apache server
- **DATA BASE SERVER:** MySQL
- **IDE:** Adobe Dreamweaver CS 6.0 / Notepad++

2.3 EXISTING SYSTEM

The existing system could be traditional offline auctions or online auction platforms that already exist in the market. Traditional offline auctions involve physical gatherings where items are auctioned off to the highest bidder. Online auction platforms like eBay, Amazon Auctions, or specialized auction websites already provide a framework for buying and selling items through online auction.

DRAWBACK OF EXISTING SYSTEM

CHANCES OF FRAUD: Images of products in online auctions may be different from the original product. Online auctions may lead to fraud, or leave buyers vulnerable to online fraudsters and hackers. There have been several cases, where sellers have dupedbuyers in an online auction. In some cases, sellers have asked for buyers' banking information and then used it to commit online fraud.

TECHNICAL GLITCHES: There are always chances of technical glitches ruining the auction, both for buyers and sellers. These glitches could occur due to high traffic, payment gateway errors, and more. A single glitch could cost a significant amount of money to the seller. On the other hand, it could prevent buyers from purchasing the product they want. Bidders are unable to view and inspect the products.

LACKING COMPETITIVE ATMOSPHERE: Online auctions lack the competitiveatmosphere that we see in offline auctions. The competitive atmosphere in offline auctions often results in higher bids. Some bidders use a tactic, known as "Sniping." Bidders using such a strategy place their bids only at the last moment, i.e. when it becomes impossible for other bidders to come up with competitive bids. Such a practicecould result in sellers getting below the market value for their offering.

LESSER CONTROL OVER NUMBER OF PARTICIPANTS: The auction company has no control over who is participating in the bid. This could lead to anonymity in identifying the bidders. Since online auctions attract a lot more people, it means each bidder needs to outbid a lot more people to win the bid.

TIME GAP IN BIDDING & DELIVERY: Successful bidders need to wait for the delivery of the product to their address.

2.4 PROPOSED SYSTEM

The proposed system for an online e-auction platform would likely involve creating a web-based platform where users can browse, bid on, and purchase items up for auction. It would include features such as user registration, item listings with descriptions and images, bidding functionality, payment processing, and perhaps even a rating system for buyers and sellers.

ADVANTAGE

GLOBAL PARTICIPATION: This auction attracts a larger audience from around the globe because of the convenience it offers. Since it is an online auction, people canparticipate in it from the comfort of their homes.

PRE-BIDDING OPTION: Some online auctions even allow buyers to submit pre- bids. This helps in case a buyer is unable to attend the live auction.

COST REDUCTION: For the auctioneers, online auctions help to reduce costs as it doesn't involve many costs that physical auctions include. These costs include the rent of the auction hall, costs of moving products, middlemen costs, marketing costs, and more. Unlike offline auctions, there is no need for products to be available at one central location in online auctions. It saves costs and time for the auction.

OFFERS MORE CONTROL: Auctioneer gets more control in an online auction. They can easily decide how many items they want to sell and at what time.

3. FUNCTIONAL FRAMEWORK

3.1 STRUCTURE OF THE PROGRAM

An efficient code will be implemented which will support majority of the browsersand their resolution constraints. It will be ensured to consume less time for its execution. The code will be well structured with easy to understand format and separate file for both front end and back end codes.

MODULE DESCRIPTION
LOGIN/REGISTRATION MODULE

Those who wish to take part in bidding or sell products at the site have to register at the site as customer. Only authenticated users can take part in selling or in bidding. Inthis module customer can register to the system by entering registration details. Afterthe registration they can login to the system by entering unique login id and password.

This module has following sub modules:

- Login module
- Registration module

CUSTOMER ACCOUNT MODULE
In the customer account module customer can view his own bidding details, Purchasereport, auction winning report, etc. Even the customer can change his password and he can update the password in the account section.
This module has following sub modules:

- Customer account
- Customer profile
- Change password
- Update profile
- View bidding details
- View auction records

PRODUCT LIST MODULE

This module allows sellers to add auction products. This collects information like product name, product category, product detail, product image, Start bid, Sale price,Bidding start date and end date from seller.
This module has following sub modules:

- Add product
- Product list module
- Update product

CATEGORY MODULE

Before uploading product Customer should select category details. In the website product displays under the category list. Only administrator can add category records.

This module has following sub modules:

- Add category
- View category

SEARCH MODULE

In this module customer can search for particular products. After searching thesystem display records in the search list. This module has following sub modules:

- Search product list
- View product list

BIDDING MODULE

In the bidding module customer can bid for products. Customer can select any itemand they can bid for the product. This module has following sub modules:

Product Bidding module

- View bidders
- View bidding records

PURCHASE MODULE

This module is for winning bids where customer can pay for winning bids. After thepayment seller needs to deliver the product to customer. This module has following sub modules:

- Purchase product
- View purchase detail

CHAT MODULE

If the customer has any queries regarding product they can directly contact with sellers. 24x7 online chat features available. If the seller is offline then the messagestores under seller message box. This module has following sub modules:

- Compose message
- View sent messages
- View Received messages

REPORT MODULE

This module is for administrator to check sales report, product report, auction report,payment report, etc.
This has following sub modules

- View customers
- View messages

- View bidding items
- View winners list

DASHBOARD MODULE

This dashboard module is for administrator and employees. Admin has full authorityof the website and employee has limited authority.

This module has following sub modules:

- View dashboard
- View profile
- Update profile
- Change password

SETTINGS MODULE

Here administrator can add employees, categories, website settings, etc.

- Add employees
- View employees
- Add category
- View category

DOCUMENT CONVENTIONS

The format of this SRS is simple. Bold face and indentation is used on general topicsand or specific points of interest. The remainder of the document will be written using the standard font New Times Roman.

INTENDED USERS AND READING SUGGESTIONS

This document is intended for software developers, document writers and for generaldiscussions on the implementation decisions regarding the software.

3.2 SYSTEM FEATURES

The coding is done with following characteristics in mind:

- Ease of design to code translation
- Code efficiency
- Memory efficiency
- Response time
- Maintainability
- Security
- Simple ease to understand code
- Efficient and consistent logic

3.3 OTHER NON-FUNCTIONAL REQUIREMENTSPERFORMANCE

3.3.1 REQUIREMENTS

Performance requirements define acceptable response times for system functionality.

- The system is supposed to be having good memory space and RAM should be Above256 MB preferably.
- The sound card and graphics card will have to be of good quality and capacity.
- The load time for user interface screens shall take no longer than three seconds.
- The log in information shall be verified within three seconds.
- Queries shall return results within three seconds.

3.3.2 SAFETY REQUIREMENTS

- In case if the customer forget their password, they can recover the password in theForgot Password panel.
- The password stores in the database in the format of encrypted password.

3.3.3 SECURITY REQUIREMENTS

- Only authenticated users can access this system.
- Employee and Customer has different interface to increase the security.

3.4 SOFTWARE QUALITY ATTRIBUTES

- **RELIABILITY:** This system is designed to have very simple database just to cater the exact need of "Online Auction". It is tested for all the constraints at development stage.

- **AVAILABILITY:** This system will only available till the system on which it is installed is running.

- **SECURITY:** This system is provided with authentication without which no user canpass. So only the legitimate users are allowed to use the application. If the legitimate users share the authentication information then the system is open to outsiders.

- **MAINTAINABILITY:** There is maintenance required for the website. The databaseis provided by the Administrator as well as the end-use.

- **PORTABILITY**: The system works anywhere with the internet connection.

3.5 FUTURE SCOPE

- In future we can integrate this web application with mobile apps.
- We can add gaming bid features in future.
- Currently this system supports India rupee currency. In future upgradation we can addmultiple currencies.

- We can Add bidding system for Agriculture produces which helps farmers to sell forbest auction price.
- We can add GPS features where buyer can track seller location

3.6 HARDWARE AND SOFTWARE REQUIREMENTSHARDWARE REQUIREMENTS

- Processor - Intel Pentium IV
- Processor Speed – 1.40 GHz
- RAM – 2 GB or above.
- Monitor resolution - A colour monitor with minimum resolution of 1000*700

SOFTWARE REQUIREMENTS

- IDE : AdobeDreamweaverCS6.0
- Front-end: PHP 5.2
- Back-end: MySQL Server 5.1.1

3.7 LANGUAGES TO BE USEDFRONT

END: PHP, HTML
BACK END: MYSQL

4. SYSTEM DESIGN

4.1 INTRODUCTION

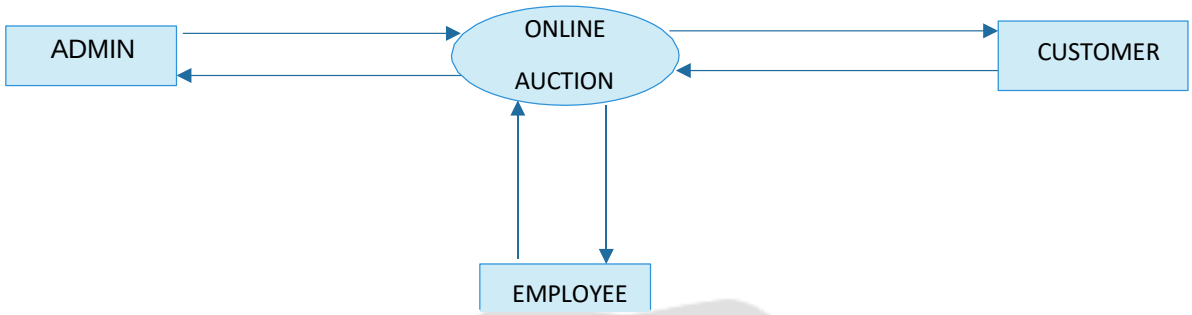
Design is processes through which requirements are translated into a representation of the software .The purpose of the designing phase is to plan a solution for the problem specified by the requirement document i.e. the requirement are translated into software.The design activities often result in three separate outputs:

- Architecture Design
- High Level Design
- Detailed Design

System Design is a solution a “How to “approach to the creation of a new system. Theimportance phase is composed of several steps. It provides the understanding of procedural detail necessary for the system recommended in the feasibility study. Emphasis is on translating the performance requirement into design specification

4.2 SYSTEM CONTEXT DIAGRAM

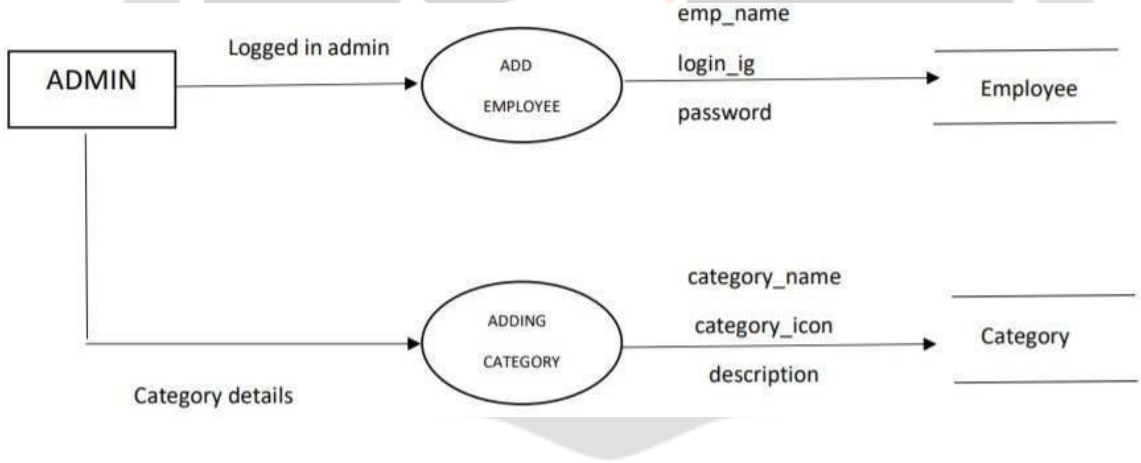
The System Context Diagram or Context Flow Diagram (CFD) describes the external entities acting on the system. The environment in which the system is used is depictedin the figure.



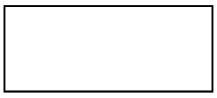
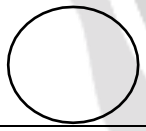
4.2.1 CONTEXT FLOW DIAGRAM (CFD)

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of the data through an information System. A DFD also can be used for the visualization of dataprocessing. It is common practice for design to draw a context level DFD first whichshows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modelled.

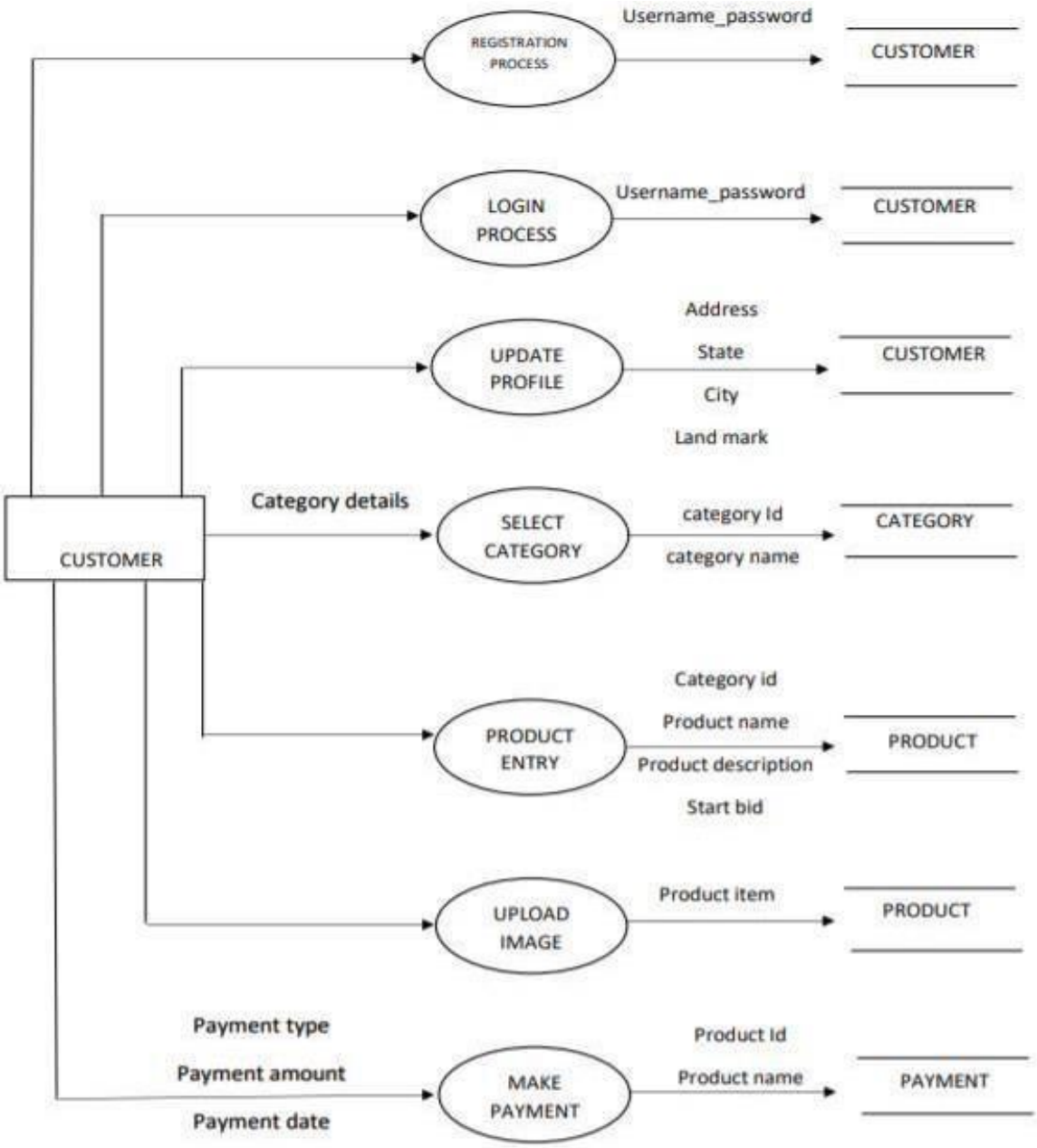
4.2.2.1 DFD FOR LEVEL 1 ADMIN



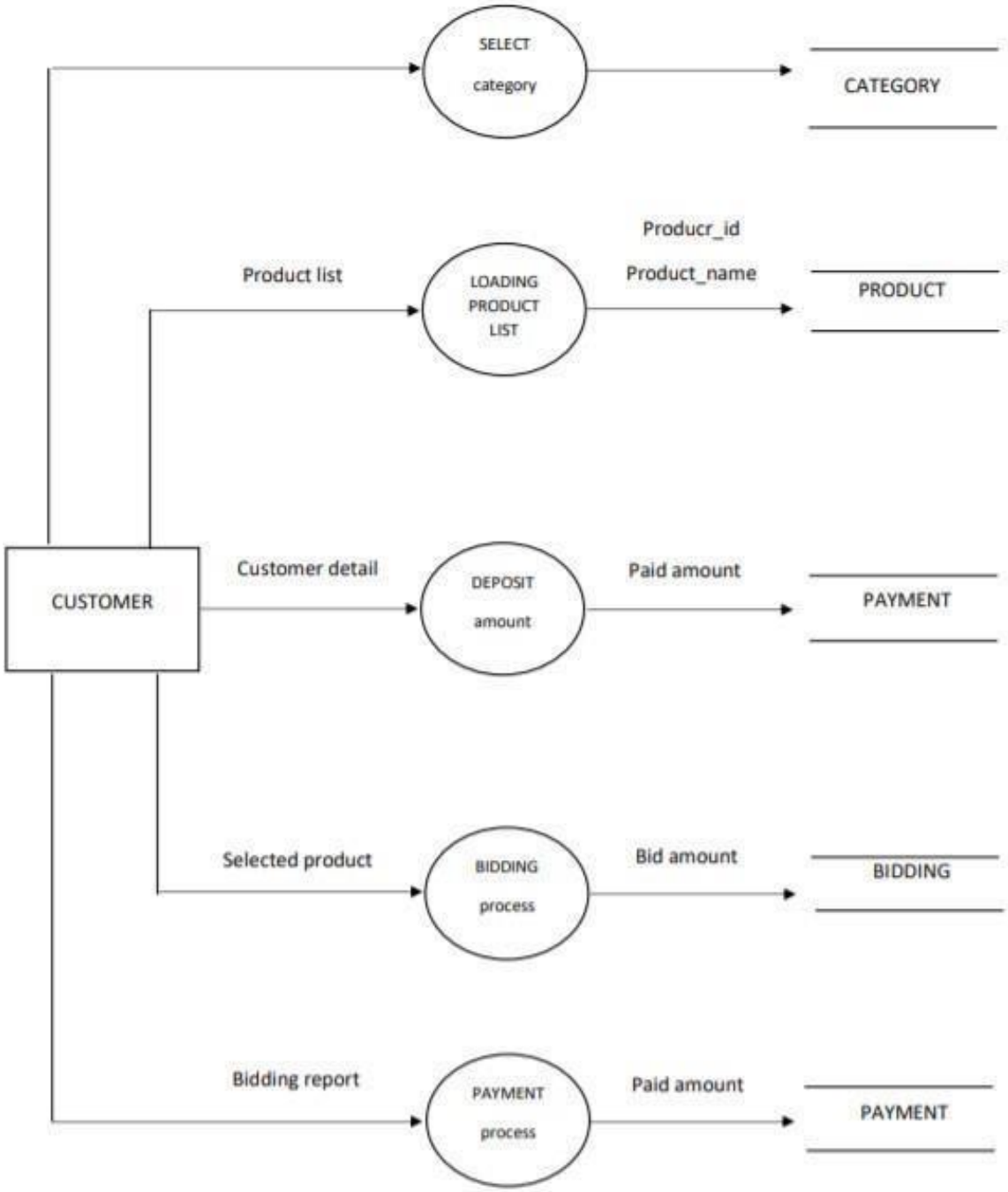
The DFD uses four symbols, and explained below:

A SQUARE 	Which defines the source or destination of system data alsocalled an external entity, is not responsible for any task performed by the System.
An ARROW	Represents data flow. It represents the path over which datatravels in the system. A data can move between processes, flow into or out of the stores to and from external entities. It must be given a name the arrow head showing the direction of flow
CIRCLE 	Represents a process that transforms data from one to another by performing some tasks with the data. The process name must be given a general idea of its function
HORIZONTAL PARALLEL LINES 	Represents data store, a data store is place where data is held temporarily from one transaction to the next or is permanently Data Flow Diagram describes what data flow (logical)rather than how they are processed, so it doesnot depend on hardware, software, data structure or file organization

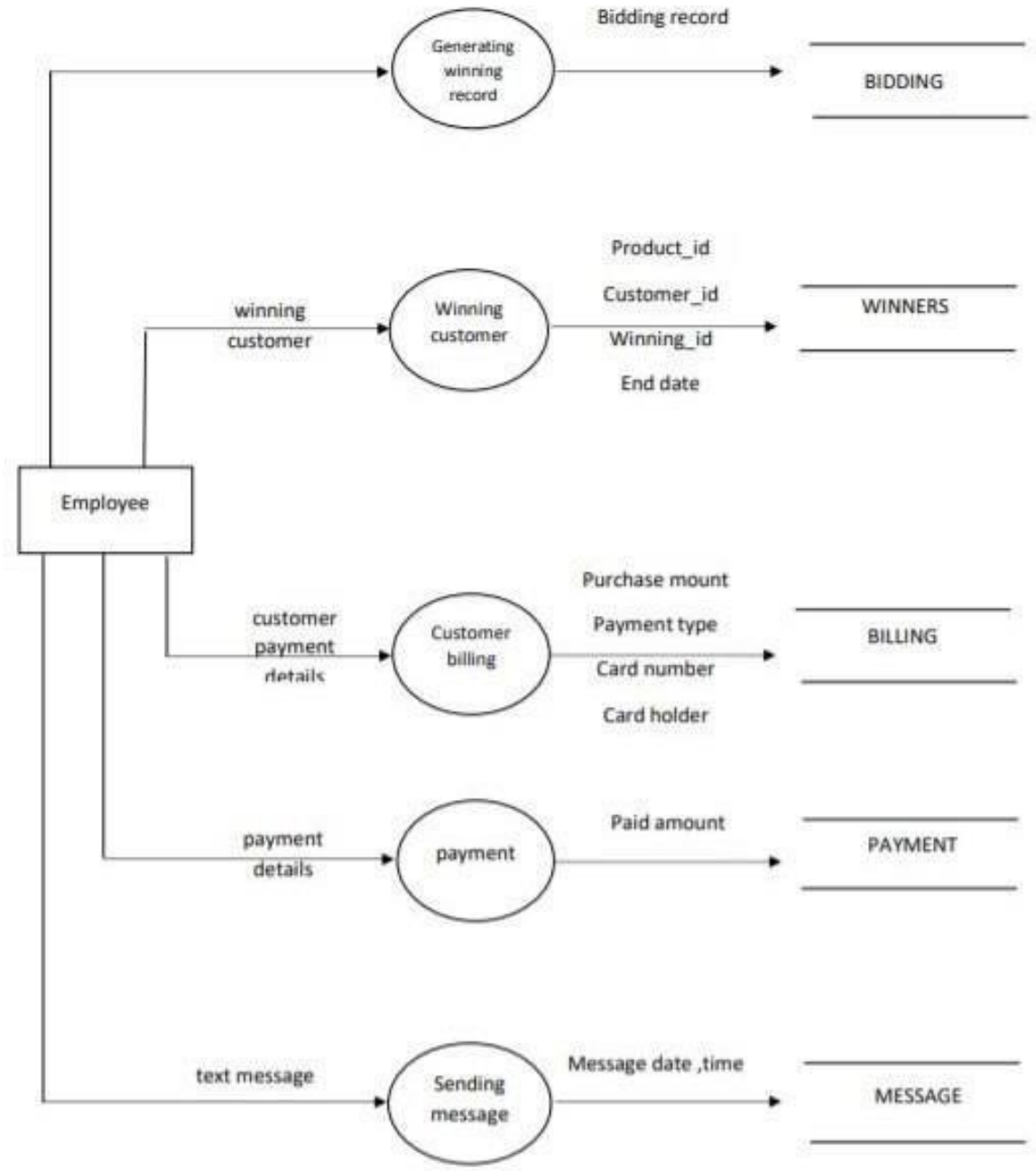
4.2.2.2 DFD FOR LEVEL 1 CUSTOMER



4.2.2.3 DFD FOR LEVEL 2 CUSTOMER



4.2.2.4 DFD FOR LEVEL 1 EMPLOYEE



5. DATABASE DESIGN

5.1 INTRODUCTION

The description of the database is called the database scheme. A database scheme is specified during database creation and is not accepted to change frequently.Most data model has certain conversations for diagrammatically.

INTERNAL LEVEL

The scheme diagram displays only some aspects of scheme, such aspects are not specified in the scheme diagram that is neither the data type of each data item that change frequently.

The data in the database is particular moment in timer is called a database state. Schema can be defined in the following three levels.
The internal Level has an internal scheme.

It describes the physical storage structure of the database.

The internal schema uses a particular data model and describes the complete details ofthe data storage and access paths of the database.

CONCEPTUAL LEVEL

The conceptual level has conceptual schema, which describes the structure of whole database for a community of users. The conceptual schema hides the details of the physical storage structure and concentrates on describing entities, datatypes relationship user operation and constraints. A high level data model or an implementation data model can be used in this model.

EXTERNAL LEVEL

External level or view includes a number of external schema or view. Each internal schema describes the part interested in and hides the rest of the database from the user group. A high level data model or an implementation model can be used at thislevel.

5.2 DATABASE DESIGN

Database design is the process of producing a detailed data model of database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity.

The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of as thelogical design of the base data structures used to store the data.

In the relational model, these are the tables and views. In an object database, the entities and relationships mapdirectly to object classes and named relationships. However, the term database design could also be used to apply to the overall process of designing, not just the base data structures, but also the forms and queries used as part of the overall databaseapplication within the database management system (DBMS).

To retrieve data from the database:

The application program determine what data is needed and communication the needto the DBMS.
The data must be defined in the sub schema.

The copy of the data is given to the operating system for processing.A database, must be created before it can be used.

5.3 TABLE STRUCTURE

5.3.1 TABLE STRUCTURE FOR TABLE BIDDING

Column	Type	Null
bidding_id	int(10)	No
customer_id	int(10)	No
product_id	int(10)	No
bidding_amount	float(10,2)	No
bidding_date_time	Datetime	No
Note	Text	No
status	varchar(10)	No

5.3.2. TABLE STRUCTURE FOR TABLE BILLING

Column	Type	Null
billing_id	int(10)	No
customer_id	int(10)	No
product_id	int(10)	No
purchase_date	date	No
purchase_amount	float(10,2)	No
payment_type	varchar(20)	No
card_type	varchar(50)	No
card_number	varchar(20)	No
expire_date	date	No
cvv_number	varchar(5)	No
card_holder	varchar(50)	No
delivery_date	date	No
note	text	No
status	varchar(10)	No

5.3.3 TABLE STRUCTURE FOR TABLE CATEGORY

Column	Type	Null
category_id	int(10)	No
category_name	varchar(50)	No
category_icon	varchar(100)	No
description	text	No
status	varchar(10)	No

5.3.4 TABLE STRUCTURE FOR TABLE CUSTOMER

Column	Type	Null
customer_id	int(10)	No
customer_name	varchar(50)	No

email_id	varchar(50)	No
password	varchar(100)	No
address	text	No
state	varchar(25)	No
city	varchar(25)	No
landmark	varchar(50)	No
pincode	varchar(6)	No
mobile_no	varchar(15)	No
note	text	No
status	varchar(10)	No

5.4.5 TABLE STRUCTURE FOR TABLE EMPLOYEE

Column	**Type**	**Null**
employee_id	int(10)	No
employee_name	varchar(50)	No
login_id	varchar(50)	No

password	varchar(100)	No
employee_type	varchar(50)	No
status	varchar(15)	No

5.3.6 TABLE STRUCTURE FOR TABLE MESSAGE

Column	Type	Null
message_id	int(10)	No
sender_id	int(10)	No
receiver_id	int(10)	No
message_date_time	datetime	No
product_id	int(10)	No
message	text	No
status	varchar(10)	No

5.3.7 TABLE STRUCTURE FOR TABLE PAYMENT

Column	Type	Null
payment_id	int(10)	No
customer_id	int(10)	No
payment_type	varchar(50)	No
product_id	int(10)	No
bidding_id	int(10)	No
paid_amount	float(10,2)	No
paid_date	date	No
status	varchar(10)	No

5.3.8 TABLE STRUCTURE FOR TABLE PRODUCT

Column	Type	Null
product_id	int(10)	No
customer_id	int(10)	No

product_name	varchar(50)	No
category_id	int(10)	No
product_description	text	No
starting_bid	float(10,2)	No
ending_bid	float(10,2)	No
start_date_time	datetime	No
end_date_time	datetime	No
product_cost	float(10,2)	No
product_image	varchar(100)	No
product_warranty	varchar(100)	No
product_delivery	text	No
company_name	varchar(100)	No
status	varchar(10)	No

5.3.9 TABLE STRUCTURE FOR TABLE WINNERS

Column	Type	Null
winner_id	int(10)	No
product_id	int(10)	No
customer_id	int(10)	No
winners_image	varchar(100)	No
winning_bid	float(10,2)	No
end_date	date	No
status	varchar(10)	No

5.4 ENTITY RELATIONSHIP DIAGRAM

Entity relationship diagram is used in modern database software. Software engineering is to illustrate logical structure of database. It is a relational schema database, modelling method, used to model a system and approach. This approach is commonly used in database design. The diagram created using this are called entity relationship diagram.

The ER diagram depicts the various relationship among entities, considering each object as an entity. Relationship depicts the relationship between data objects. The ERD is the notation that is used to conduct the data modeling activity.

ENTITY

Entity is a thing, which we want to store information. It is an elementary basic buildingblock of storing information about business process. An entity represents an object desired within the information system abut which u want to store information.

RELATIONSHIP

A relationship is a named connection, associated between entities, or used to relate two or more entities with some common attributes or meaningful interaction between the object.

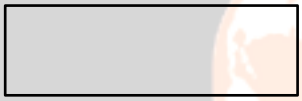
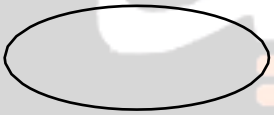
ATTRIBUTES

Attributes are the properties of entities and relationship. Description of the entity. Attributes are elementary pieces of information attached to an entity.

LINK

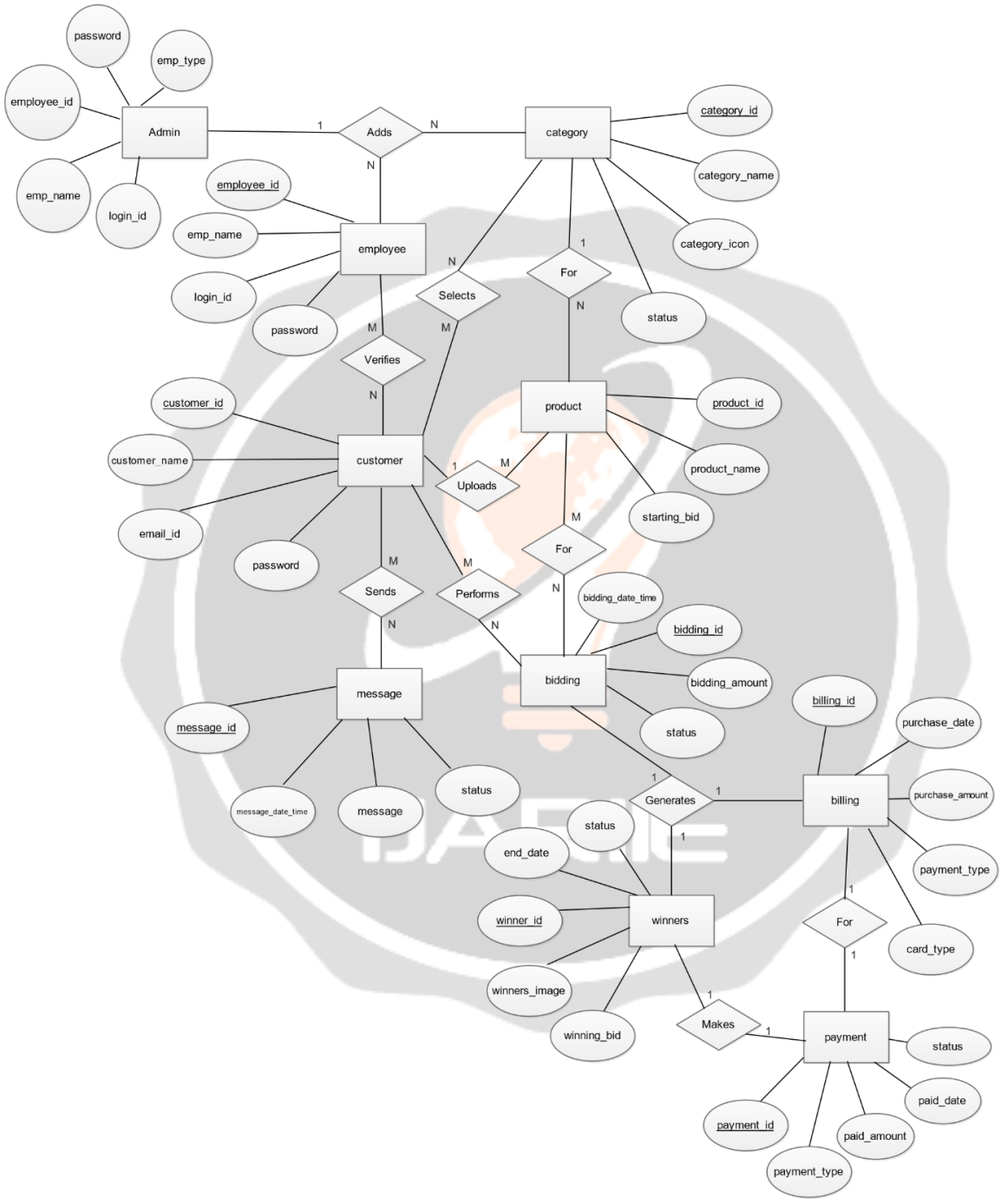
Lines link attributes to entity set and entity sets to relation.

5.5 ER- Diagram Symbols:

NAME	NOTATION	DESCRIPTION
ENTITY		It may be an object with the physical existence orconceptual existence. It is represented by a rectangle.
ATTRIBUTE		The properties of the entity. Can be attribute. It isrepresented by a Ellipse.
RELATIONSHIP		Whenever an attribute of one entity refers toanother entity, some relationship exists. It is represented by a Diamond
LINK		Lines link attributes to entity set and entity sets torelation
CARDINALITY RATIO	1:1 1:N N:1	It specifies the maximum number of relationships instances that an entity can participate in. There are four cardinality ratios.

	M:1	

5.5 ER DIAGRAM



6. TESTING

6.1 INTRODUCTION

Testing is the major quality control measure used during software development. It is a basic function to detect errors in the software. During the requirement analysis and design the output of the document that is usually textual and non-executable after the coding phase the computer programs are available that can be executed for testing purpose. This implies that testing not only has to uncover errors introduce during the previous phase. The goal of testing is to uncover requirement, design, coding errors in theprogram.

Testing determines whether the system appears to be working according to the specifications. It is the phase where we try to break the system and we test the system with real case scenarios at a point.

6.2 LEVELS OF TESTING

UNIT TESTING: The unit testing of the source code has to be done for every individualunit of module that was developing part of the system and some errors were found for every turn and rectified. This form of testing was use to check for the behaviour signifiedthe working of the system in different environment as an independent functional unit.

INTEGRATION TESTING: From the individual parts to the cohesion of each part to make the system as a whole, there is need to test the working between the assembled modules of the system. The modules are integrated to makeup the entire system. The testing process is concerned with finding errors that result from unanticipated interaction between the subsystem and system component. It is also concerned with validating the system meets its functional and non-functional requirement.

SYSTEM TESTING: The requirement specification document that is the entire systemis to be tested to see whether it meets the requirement or not.

7. CONCLUSION

So, from above all elaboration here in short we would say online auction system will give new approaches and dimensions to the auction system .It will encourage both buyers and sellers to participate in auction process. Removes geographical boundaries, location constraints and time constraints.It is a transparent process with no mutual work. Finally, online auction has become other easy solution to the expectation of online buyers since it excludes the need of physical presence of a bidder at the auctionplace and the product can be obtained at the affordable price. Buyers can buy the product at there own affordable price.

8. REFERENCES

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