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DBMS MINI-PROJECT (18CSL58) REPORT ON

“ONLINE SHIPPING SERVICES”

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## ABSTRACT

Under the domain Online Shipment System , Vship is an online marketplace for shipping services. Individuals and businesses post the items to be shipped in a variety of categories on Vship including auto transport , moving services and also the transport of heavy/bulky equipments.

Transportation service providers on Vship look for the products of various categories posted on the website and then choose to work on it based on the their available range of vehicles.

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# 1.INTRODUCTION

## Online Shipping Services

### VShip

#### ON TIME | ON DEMAND

The VShip shipping service is a complete solution for easily transporting materials within the city based on the user's request as and when required.

Vship is an online marketplace for shipping services. Individuals and businesses post the items to be shipped in a variety of categories on Vship including auto transport , moving services and also the transport of heavy/bulky equipments.

VShip mainly consists of two entities viz,

1.Customer

2.Transporter

- Customer is the one who requests the service.
- Transporter is the one who provides the service.

Transportation service providers on Vship look for the products of various categories posted on the website and then choose to work on it based on the their available range of vehicles.

People in the city who want to relocate their house or office completely can use this service to get their work done easily and reliably at very reasonable prices , and also the individuals or businesses who want to just transport some of their stuff i.e either light or bulky materials , from one place to another can use this service to get their task done.

People who request the service from VShip are always ensured safe , systematic and on-time delivery of their products at the desired place.

## **2.FEASIBILITY STUDY**

### **2.1.ECONOMIC FEASIBILITY**

Economic analysis is most frequently used for evaluation of the effectiveness of the system. More commonly known as cost/benefit analysis the procedure is to determine the benefit and saving that are expected from a system and compare them with costs, decisions are made to design and implement the system. This part of feasibility study gives the top management the economic justification for the new system. This is an important input to the management, because very often the top management does not like to get confounded by the various technicalities that bound to be associated with a project of this kind. A simple economic analysis that gives the actual comparison of costs and benefits is much more meaningful in such cases. It is economically feasible, it will only require a single operator to operate the system, who is responsible for entering the data into the database via a user interface provided to him, who can also be able to show all the data in html tabular form so to provide information regarding the students who are either taken admission or to take admission, since it requires only a single person to operate the whole system thus reduces the cost to operate the system. In the system, the organization is most satisfied by economic feasibility. Because, if the organization implements this system, it need not require any additional hardware resources as well as it will be saving lot of time.

### **2.2.TECHNICAL FEASIBILITY**

Technical feasibility centers on the existing manual system of the test management process and to what extent it can support the system. According to feasibility analysis procedure the technical feasibility of the system is analyzed and the technical requirements such as software facilities, procedure, inputs are identified. It is also one of the important phases of the system development activities. It is technically feasible, since the whole system is designed into the latest technologies like PHP and SQL Server which are the most recent technologies to develop web based systems and design databases.

The system offers greater levels of user friendliness combined with greater processing speed. Therefore, the cost of maintenance can be reduced. Since, processing speed is very high and the work is reduced in the maintenance point of view management convince that the project is operationally feasible.

### **3.3.OPERATIONAL FEASIBILITY**

It is Operational feasible, since the system is providing a attractive user interface to the operator/end user, so he feel very easy to work onto it. Response to operator/end user is very fast and very good. Since, as we mentioned above that it requires much less amount of cost, it uses computer work so it is very fast to operate and it is very easy for user to work on it.



## **3.REQUIREMENTS**

### **3.1.Hardware Requirements:**

- Minimum Intel Pentium IV Processor
- Min 512 Mb of RAM
- Normal graphics of 32 bits
- Network Interface component

### **3.2.Software Requirements:**

- Windows XP , Windows Vista , Windows 7 as operating system.
- XAMPP
- Visual Studio Code

### **3.3.Languages:**

- HTML (Front-end)
- CSS (Front-end)
- PHP (Back-end)
- MySQL (Database)

## 4. TECHNOLOGIES USED IN PROJECT

### 4.1. MySQL:

MySQL is a powerful Relational Database Management System (RDBMS) which we will use to learn the basic principles of database and data manipulation using the Structured Query Language (SQL) statements .

MySQL is a database server program and as such is installed on one machine but can serve the database to a variety of locations.

The MySQL server is installed on a server and can be accessed directly via various client interfaces , which send SQL statements to the server and then display the result to a user.

SQL is a database language that is used to retrieve , insert , delete and update the stored data. This is achieved by constructing conditional statements that conform to a specific syntax (i.e the strict order required of elements for a statement to work).

### 4.2. HTML:

**Hypertext Markup Language (HTML)** is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items.

HTML elements are delineated by *tags*, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

### 4.3.CSS:

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable.

CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs, variations in display for different devices and screen sizes as well as a variety of other effects.

CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.

### Advantages of CSS

- **CSS saves time** – You can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.
- **Pages load faster** – If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.
- **Easy maintenance** – To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
- **Superior styles to HTML** – CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- **Multiple Device Compatibility** – Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.
- **Global web standards** – Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers

#### **4.4.PHP:**

PHP started out as a small open source project that evolved as more and more people found out how useful it was. Rasmus Lerdorf unleashed the first version of PHP way back in 1994.

Characteristics of PHP:

Five important characteristics make PHP's practical nature possible –

- Simplicity
- Efficiency
- Security
- Flexibility
- Familiarity

Common uses of PHP

- PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them.
- PHP can handle forms, i.e. gather data from files, save data to a file, through email you can send data, return data to the user.
- You add, delete, modify elements within your database through PHP.
- Access cookies variables and set cookies.
- Using PHP, you can restrict users to access some pages of your website.
- It can encrypt data.

## 5.SYSTEM DESIGN

The system design develops the architectural detail required to build a system or product. As in the case of any systematic approach, this software too has undergone the best possible design phase fine tuning all efficiency, performance and accuracy levels. The first step in system designing is to determine how the output is to be produced and in what format.

Samples of the output and input are also presented. In the second step, input data and master files are to be designed to meet requirement of the proposed output. The processing phases are handled through program construction and testing, including a list of the programs needed to meet the system's objectives and complete documentation.

### 5.1.DESIGN METHODOLOGY

System design is the solution to the creation of a new system. This phase is composed of several systems. This phase focuses on the detailed implementation of the feasible system.

It emphasis on translating design specifications to performance specification.

System design has two phases of development logical and physical design.

During logical design phase the analyst describes inputs (sources), out puts (destinations), databases (data sores) and procedures (data flows) all in a format that meats the uses requirements. The analyst also specifies the user needs and at a level that virtually determines the information flow into and out of the system and the data resources. Here the logical design is done through data flow diagrams and database design.

The physical design is followed by physical design or coding. Physical design produces the working system by defining the design specifications, which tell the programmers exactly what the candidate system must do. The programmers write the necessary programs that accept input from the user, perform necessary processing on accepted data through call and produce the required report on a hard copy or display it on the screen.

#### 5.1.1.LOGICAL DESIGN

Logical design of an information system shows the major features and also how they are related to one another. The first step of the system design is to design logical design elements. This is the most creative and challenging phase and important too. Design of proposed system produces the details of the state how

the system will meet the requirements identified during the system analysis that is, in the design phase we have to find how to solve the difficulties faced by the existing system.

The logical design of the proposed system should include the details that contain how the solutions can be implemented. It also specifies how the database is to be built for storing and retrieving data, what kind of reports are to be created and what are the inputs to be given to the system. The logical design includes input design, output design, and database design and physical design.

### **5.1.2. PHYSICAL DESIGN**

The process of developing the program software is referred to as physical design. We have to design the process by identifying reports and the other outputs the system will produce. Coding the program for each module with its logic is performed in this step. Proper software specification is also done in this step.

### **5.1.3 MODULAR DESIGN**

A software system is always divided into several sub systems that makes it easier for the development. A software system that is structured into several subsystems makes it easy for the development and testing. The different subsystems are known as the modules and the process of dividing an entire system into subsystems is known as modularization or decomposition.

A system cannot be decomposed into several subsystems in any way. There must be some logical barrier, which facilitates the separation of each module. The separation must be simple but yet must be effective so that the development is not affected.

The system under consideration has been divided into several modules taking into consideration the above-mentioned criteria. The different modules are

1. User module
2. Administrator module

## **5.2. INPUT DESIGN**

The input design is the link between the information system and the user. It comprises the developing specification and procedures for data preparation and those steps are necessary to put transaction data into a usable form for processing data entry. The activity of putting data into the computer for processing can be achieved by inspecting the computer to read data from a written or printed document or it can occur by having people keying the data

directly into the system. The design of input focuses on controlling the amount of input required, controlling errors, avoiding delay, avoiding extra steps and keeping the process simple.

The system needs the data regarding the asset items, depreciation rates, asset transfer, physical verification for various validation, checking, calculation and report generation. The error raising method is also included in the software, which helps to raise error message while wrong entry of input is done. So in input design the following things are considered.

- What data should be given as input?
- How the data should be arranged or coded?
- Methods for preparing input validations and steps to follow when error occur

### **5.3.OUTPUT DESIGN**

Computer output is the most important and direct information source to the user.

Output design is a process that involves designing necessary outputs in the form of reports that should be given to the users according to the requirements. Efficient, intelligible output design should improve the system's relationship with the user and help in decision making. Since the reports are directing referred by the management for taking decisions and to draw conclusions they must be designed with almost care and the details in the reports must be simple, descriptive and clear to the user. So while designing output the following things are to be considered.

- Determine what information to present
- Arrange the presentation of information in an acceptable format
- Decide how to distribute the output to intended receipts

Depending on the nature and future use of output required, they can be displayed on the monitor for immediate need and for obtaining the hardcopy.

## 5.4.DATABASE DESIGN

The overall objective in the development of database technology has been to treat data as an organizational resource and as an integrated whole. DBMS allow data to be protected and organized separately from other resources. Database is an integrated collection of data.

The most significant form of data as seen by the programmers is data as stored on the direct access storage devices. This is the difference between logical and physical data.

Database files are the key source of information into the system. It is the process of designing database files, which are the key source of information to the system. The files should be properly designed and planned for collection, accumulation, editing and retrieving the required information.

The organization of data in database aims to achieve three major objectives: -

- Data integration.
- Data integrity.
- Data independence.

The proposed system stores the information relevant for processing in the MS SQL SERVER database. This database contains tables, where each table corresponds to one particular type of information. Each piece of information in table is called a field or column.

A table also contains records, which is a set of fields. All records in a table have the same set of fields with different information. There are primary key fields that uniquely identify a record in a table. There are also fields that contain primary key from another table called foreign keys.



### 5.4.1.NORMALIZATION

Normalization is a technique of separating redundant fields and breaking up a large table into a smaller one. It is also used to avoid insertion, deletion and updating anomalies. All the tables have been normalized up to the third normal form. In short the rules for each of the three normal forms are as below.

- First normal form

A relation is said to be in 1NF if all the underlying domain of attributes contain simple individual values.

- Second normal form

The 2NF is based on the concept of full functional dependency. A relation said to be in

2NF if and only if it is in 1NF and every non-key attribute is fully functionally dependent on candidate key of the table.

- Third normal form

The 3NF is based on the concept of transitive dependency. A relation in 2NF is said to be in 3NF if every non-key attribute is non-transitively.

## 5.4.2.TABLES

1.CUSTOMER

2. TRANSPORTER

3.SHOUTBOX

4.STATUS

### CUSTOMER:

| Attribute | Datatype  |
|-----------|-----------|
| Fname     | varchar() |
| Lname     | varchar() |
| Gender    | varchar() |
| Ph_no     | Integer   |
| Email     | varchar() |
| Pwd       | varchar() |

### TRANSPORTER:

| Attribute | Datatype  |
|-----------|-----------|
| Fname     | varchar() |
| Lname     | varchar() |
| Gender    | varchar() |
| Ph_no     | Integer   |
| Email     | varchar() |
| Pwd       | varchar() |

**SHOUTBOX:**

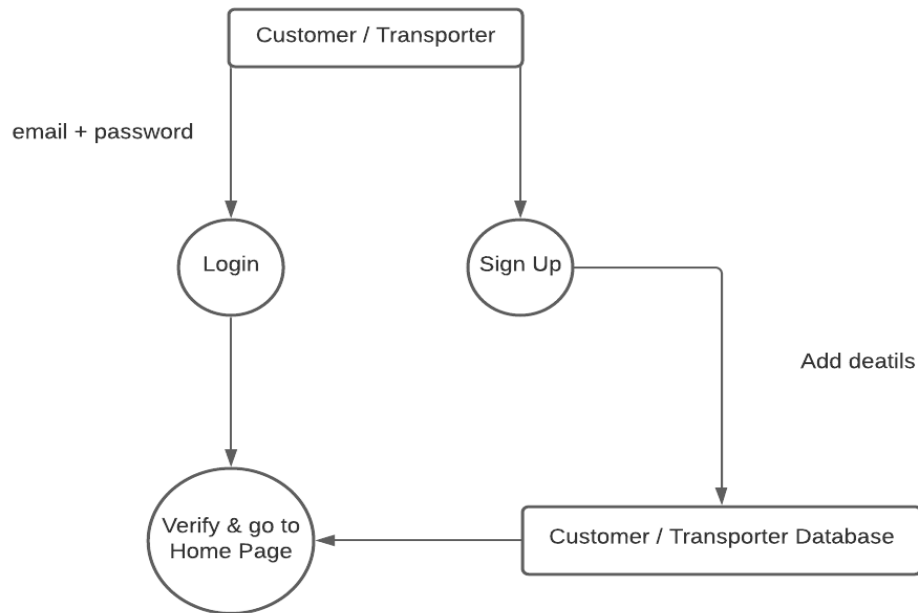
| <b>Attribute</b> | <b>Datatype</b> |
|------------------|-----------------|
| Cname            | varchar()       |
| Number           | integer         |
| Details          | varchar()       |
| Fname            | varchar()       |
| Fpath            | varchar()       |

**STATUS:**

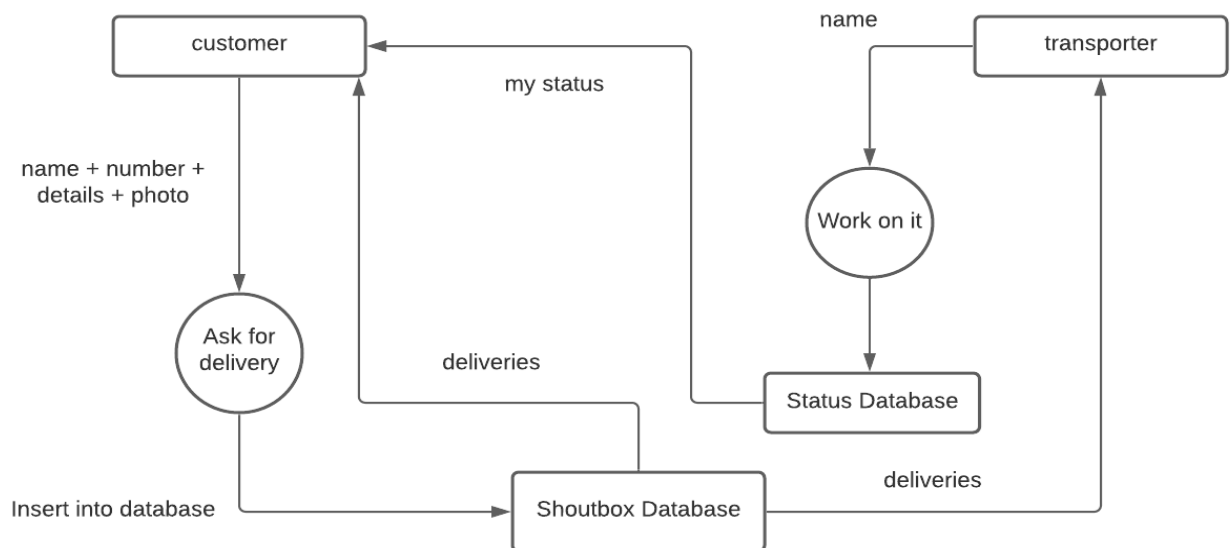
| <b>Attribute</b> | <b>Datatype</b> |
|------------------|-----------------|
| Cname            | varchar()       |
| Details          | varchar()       |
| Fname            | varchar()       |
| Tname            | varchar()       |

## 6.DATA FLOW DAIGRAM

### 6.1.Customer & Transporter Registration:



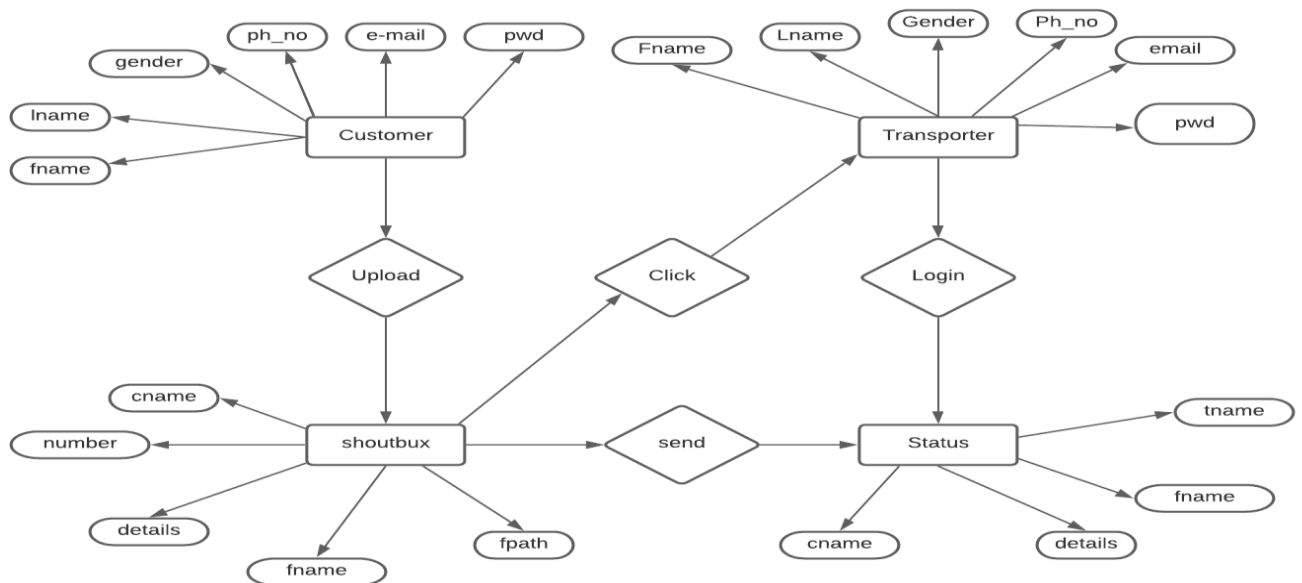
### 6.2.Deliveries:



## 7.ER DIAGRAM

An entity–relationship **model** (or **ER model**) describes interrelated things of interest in a specific domain of knowledge. A basic **ER model** is composed of entity types (which classify the things of interest) and specifies relationships that can exist between entities (instances of those entity types).

### E-R Diagram



## 8.PROJECT DEFINITION

The Online Shipping Services has been divided into 4 sections which are mentioned as follows ,

8.1. Transporter Registration & Login

8.2. Customer Registration & Login

8.3.Customer's Requests

8.4.Transporter's Services

### 8.1.Transporter Registration & Login:

The transporters who wish to provide their services initially need to register themselves on Vship by their own . This will enable the system to display the personalized information and certain information such as name and email address.Transportation service providers on VShip place competing bids for the right to haul a customer's shipment. For some categories, including boats, autos and less-than-truckload (LTL) freight.

A screenshot of a web application showing a 'Transporter Registration' form. The form is overlaid on a background image of a white Ford pickup truck driving on a road. The form fields include: First Name, Last Name, Gender (Male/Female), Phone Number, E-mail Id, and Password. A 'Register' button is at the bottom.

**Transporter Registration**

First Name

Last Name

☐ Male ☐ Female

Phone Number

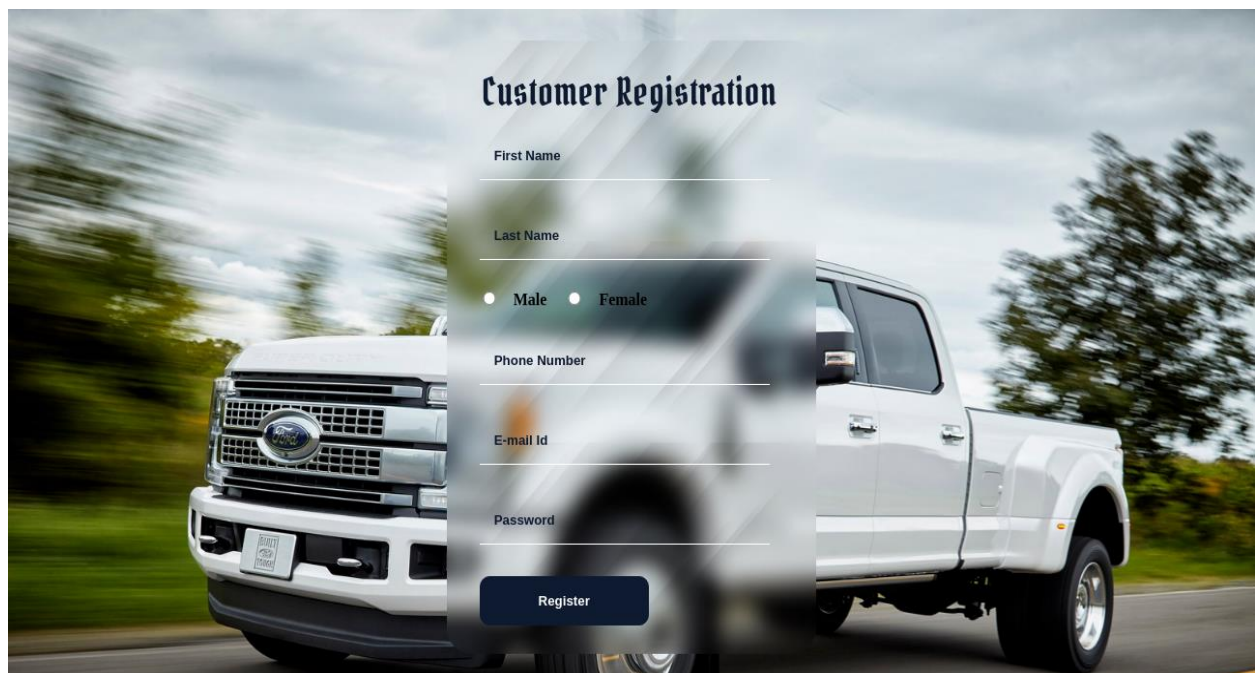
E-mail Id

Password

Register

## 8.2.Customer Registration & Login:

The customers (individuals or businesses) who request the service by the transporter must also first register on the VShip and then they need to login using their credentials so as to get their work done. The customers can upload the pictures of the stuff which needs to be delivered from one place to another with all the details (dimensions ,contact info etc.,). Customers can select an upfront quote for transport services or enter an acceptable price to be matched with a transporter. Customers can book a shipment immediately from these quotes or opt to wait for auction bids, similar to eBay's "buy it now" feature .



**Customer Registration**

First Name

Last Name

☐ Male ☒ Female

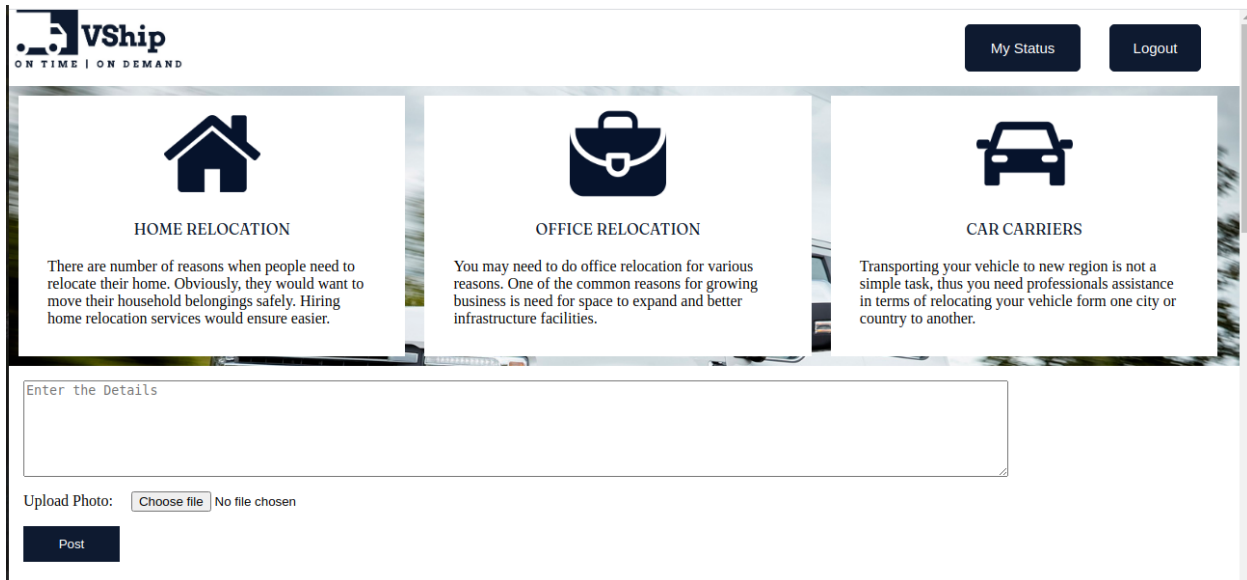
Phone Number

E-mail Id

Password

## 8.3 & 8.4 Customer's Requests & Transporter's Service

- Once the customer requests the service, he needs to post a picture of the item that is to be shipped along with the related details (size, weight etc.) and also the contact information by which the transporter will be able to contact the customer.

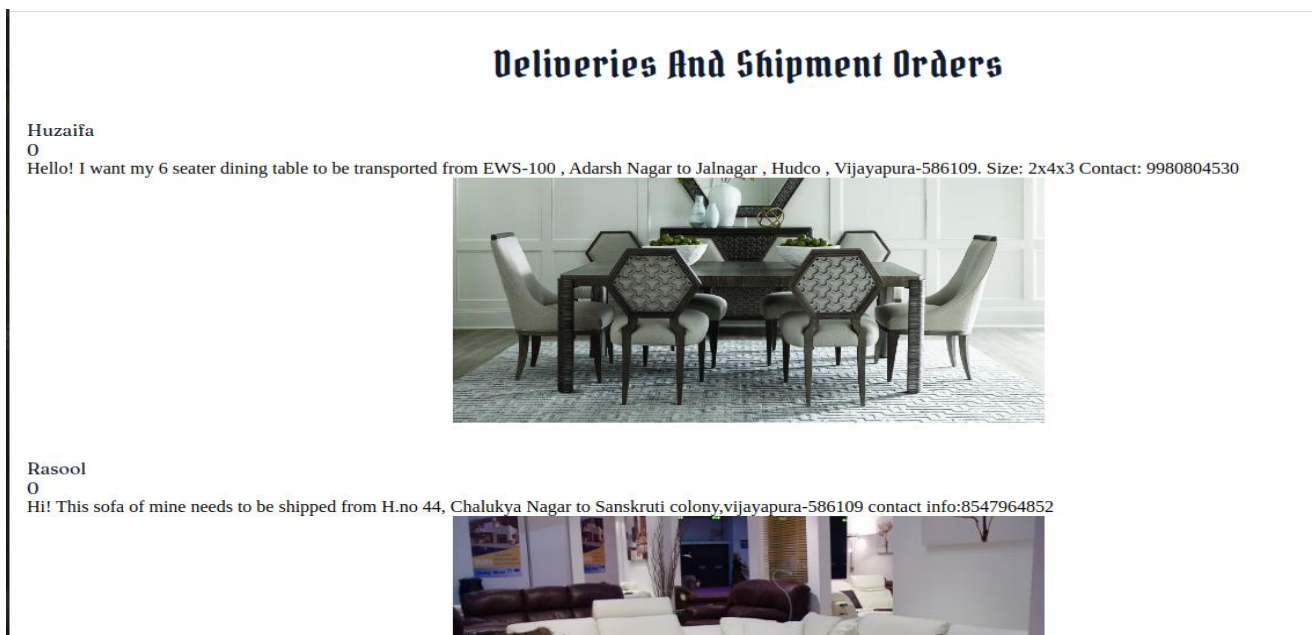


The screenshot shows the VShip website interface. At the top left is the VShip logo with the tagline "ON TIME | ON DEMAND". At the top right are two buttons: "My Status" and "Logout". Below the header, there are three main service categories, each with an icon and a description:

- HOME RELOCATION**: Represented by a house icon. Text: "There are number of reasons when people need to relocate their home. Obviously, they would want to move their household belongings safely. Hiring home relocation services would ensure easier."
- OFFICE RELOCATION**: Represented by a briefcase icon. Text: "You may need to do office relocation for various reasons. One of the common reasons for growing business is need for space to expand and better infrastructure facilities."
- CAR CARRIERS**: Represented by a car icon. Text: "Transporting your vehicle to new region is not a simple task, thus you need professionals assistance in terms of relocating your vehicle form one city or country to another."


Below these categories is a form to "Enter the Details". It includes a text input field, an "Upload Photo:" section with a "Choose file" button and "No file chosen" text, and a "Post" button.

- When a customer uploads items to be shipped, it looks as specified below




The screenshot shows the "Deliveries And Shipment Orders" section of the VShip website. It displays two customer requests:

**Huzaifa**  
O  
Hello! I want my 6 seater dining table to be transported from EWS-100, Adarsh Nagar to Jalnagar, Hudco, Vijayapura-586109. Size: 2x4x3 Contact: 9980804530



**Rasool**  
O  
Hi! This sofa of mine needs to be shipped from H.no 44, Chalukya Nagar to Sanskruti colony, vijayapura-586109 contact info: 8547964852






- When a transporter logs in to the VShip , the list of items with all the details will be visible to the transporter so he can choose from the items on which he wants to work . If a transporter wants to work on certain item then he must click on “**Work On It**” button and perform the requested service.

---

## Deliveries And Shipment Orders

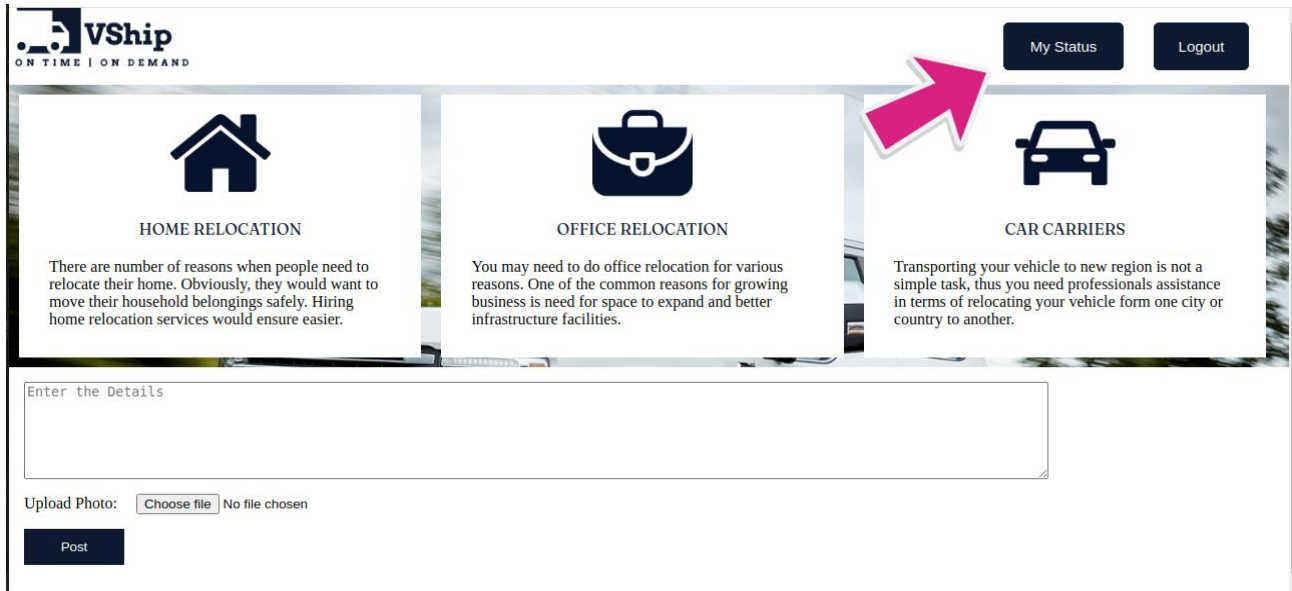
Huzaiifa  
0

Hello! I want my 6 seater dining table to be transported from EWS-100 , Adarsh Nagar to Jalnagar , Hudco , Vijayapura-586109.  
Size: 2x4x3 Contact: 9980804530

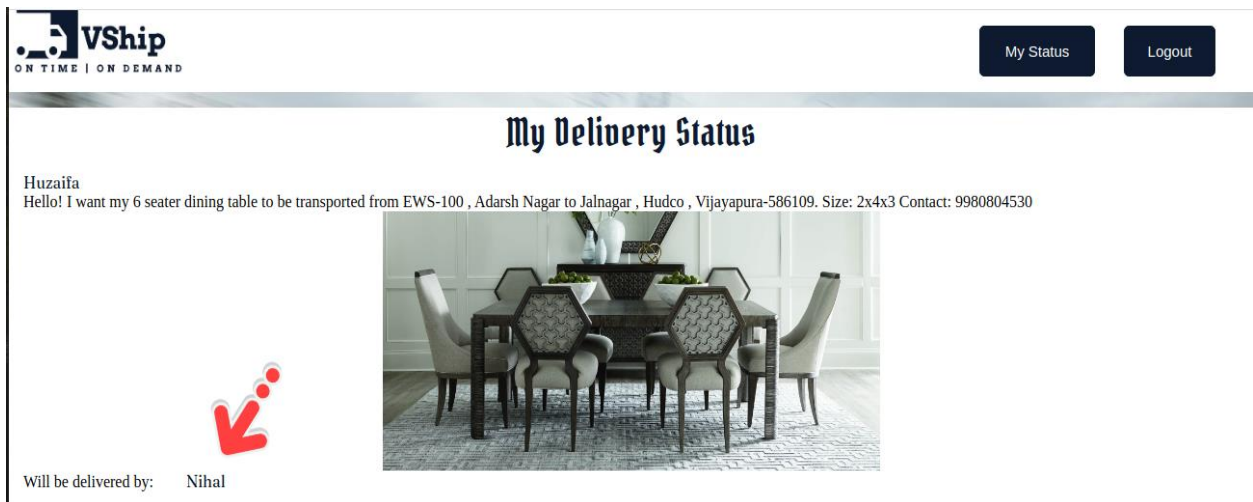


Work on it

- After posting the item to be shipped , customer will have a tab called “**My Status**” in his portal.



- By clicking on “**My Status**” button , the customer will be able to know about the transporter who is going to deliver his product.



- Once the transporter successfully delivers the product to the desired location , the a bill (inclusive of all charges) is generated and produced to the customer for payment .



## 10.CONCLUSION

After we have completed the project we assure that the problem in the existing world regarding the transportation would be overcome. The “ONLINE SHIPPING SERVICES ” project makes it easier for the individuals and businesses who want to relocate their house or office , to transport their stuff easily from one place to another with reliable service at affordable price .The Customer as well as the Transporter are provided with different login portals so as to work seamlessly. The maintenance of records is made efficient , as all the records are stored in MySQL database , through data can be retrieved easily.

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