

# Team 2

## Project 2-Phase 3

### Members:

Utsav Dhungana

Bipul Karki

Kinjon Saha

Hardik Patel

Sugam Banskota

CSE-3330-001

University of Texas at Arlington

TURN-IT

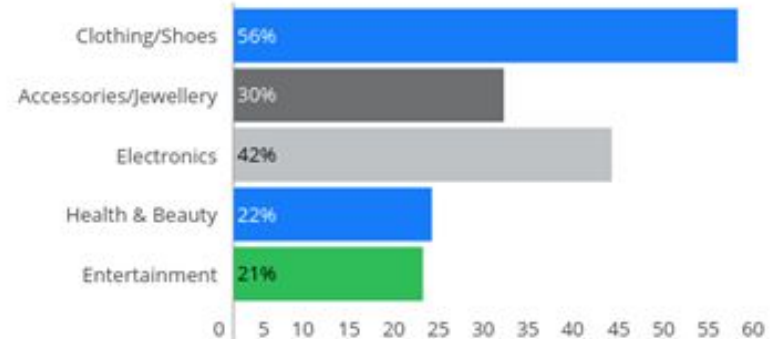
Prof. Bhanu Jain

TAs: Sparda Gupta, Yash Dani

# Domain Choice

- Online return induced trash will be managed by our company “Turn-it” by working with our collaborators.

## Most Frequently Returned Online Product Categories



Source: global webindex, 2019.



www.SaleCycle.com

# Why does it matter?

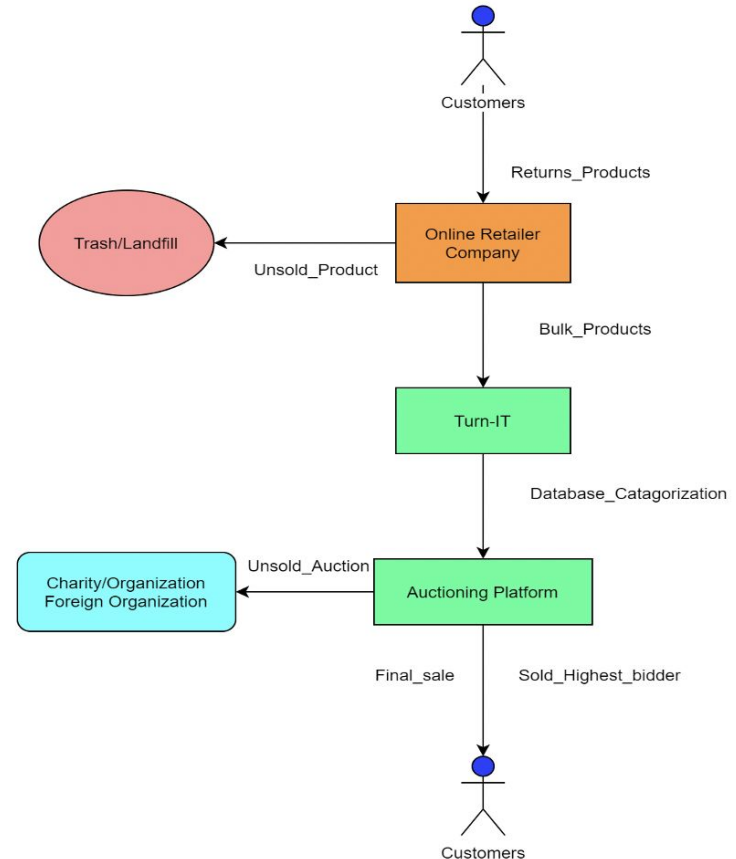
- 30% of products that were purchased online are returned, compared to less than 9% for brick and mortar stores
- the world economy will gain about \$160 billion annually



Source: Ellen MacArthur Foundation.

# How did we solve the problem?

- Auction clothes(35% of earnings goes to the apparel stores)
- Donate clothes
- Optimize business efficiency and cost



# Requirements

- ❑ **EMPLOYEE** has attributes like SSN, names, salary, address, sex,username,password where an employee *supervises* many other employees in the company.Employee has their **DEPENDENTS** which has name,sex,DOB,relation.
- ❑ EMPLOYEE will be able to delete/update/insert in database.
- ❑ Employee *works for* **DEPARTMENT** and employee also *manages* the department. Each department has a manager and has its own department id. Department is further divided into **RECEIVING-CENTER** and **AUCTION-PLATFORM**.

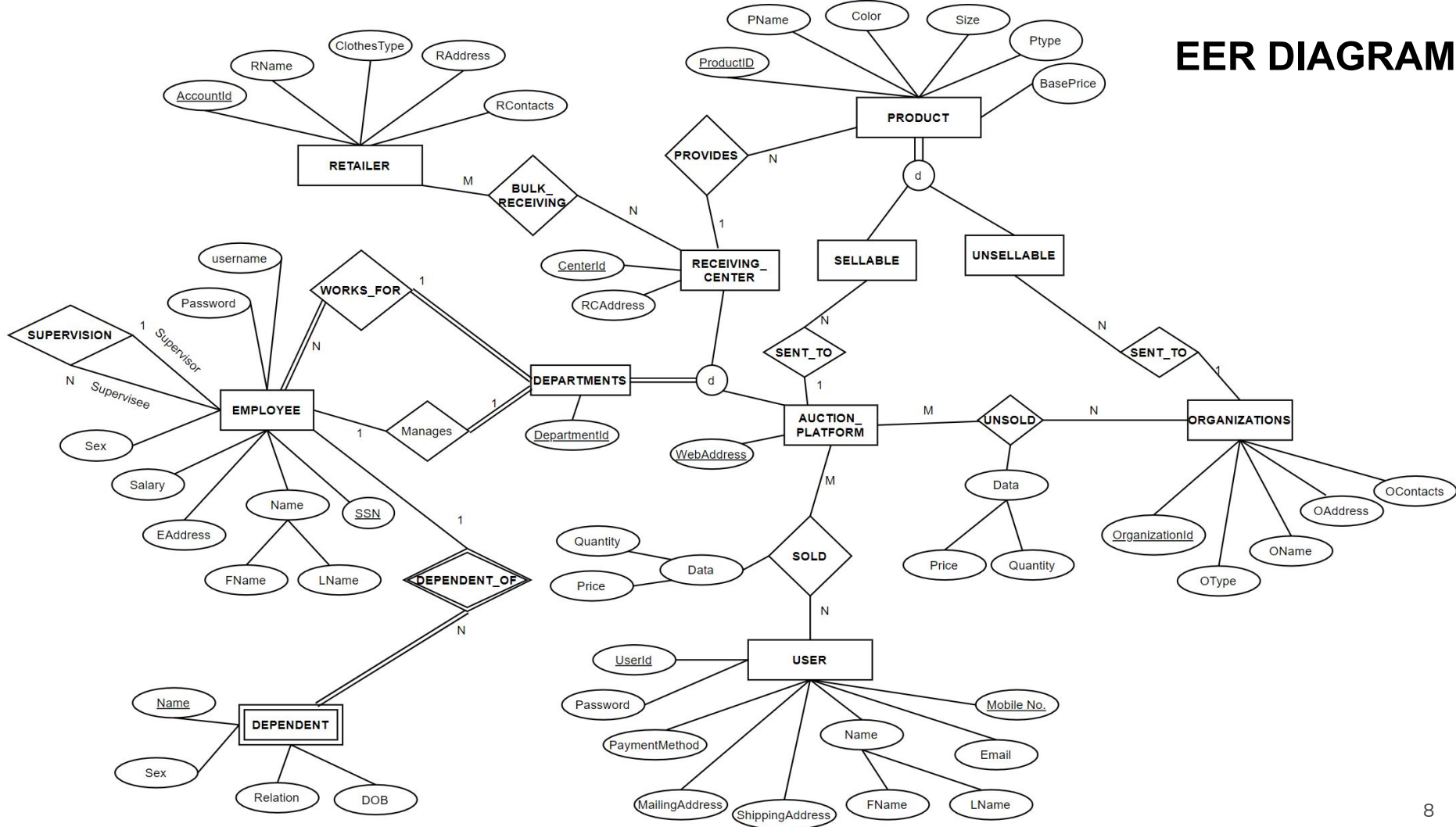
# Requirements Continued...

- ❑ **RECEIVING-CENTER** has address and centerid as it attributes whereas **AUCTION-PLATFORM** has a unique web address.
- ❑ **RECEIVING-CENTER** gets bulk product from **RETAILERS**. Then, **PRODUCTS** are *provided* as **SELLABLE** or **UNSELLABLE** based on their market value and *sent to* **Auction-Platform** and **CHARITY/ORGANIZATION**.

# Requirements Continued...

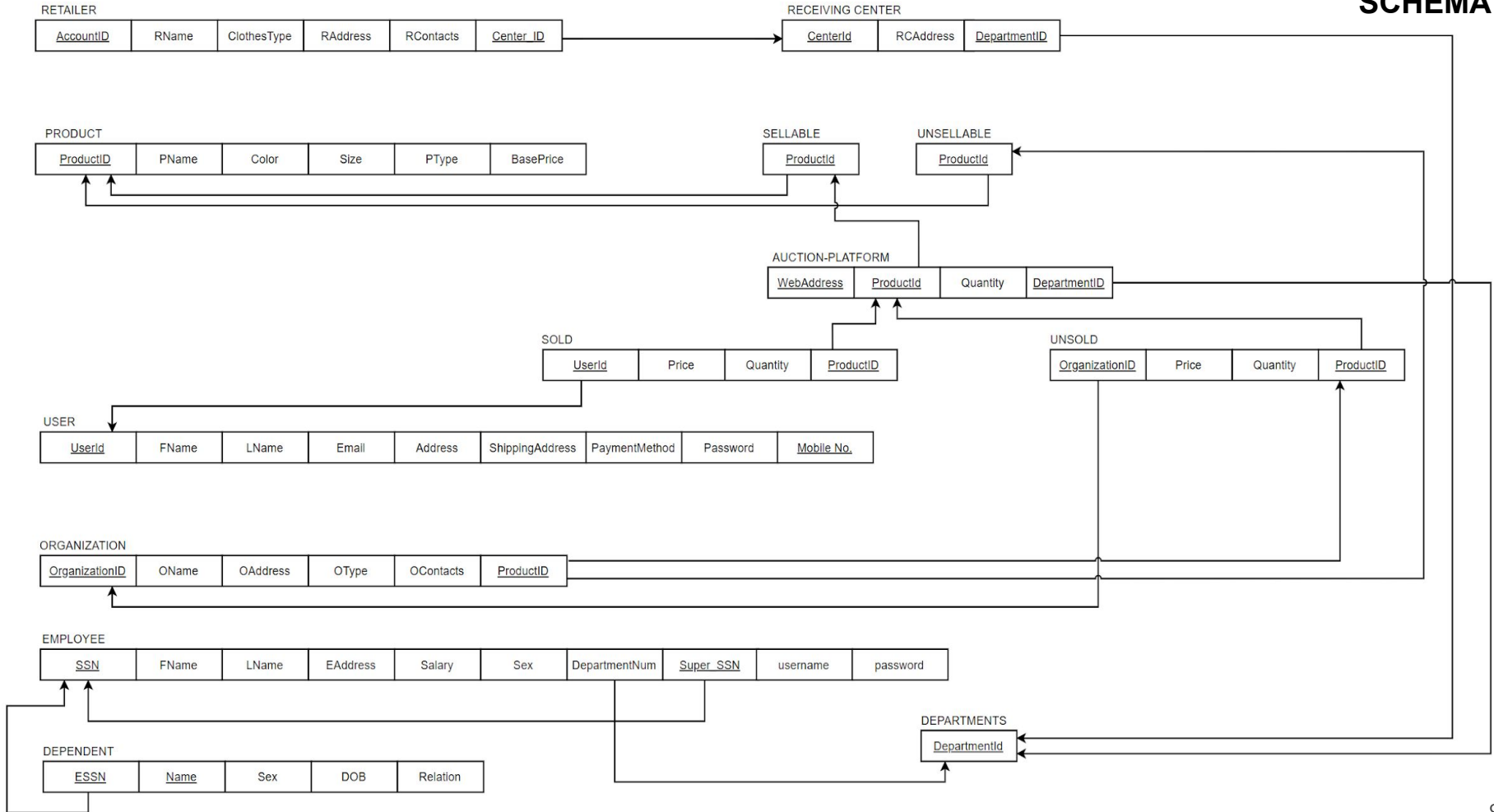
- ❑ **Charity/Organization** contains address, name, type, organizationid and contacts. Any *unsold* product from **Auction-Platform** will be sent to **Charity/Organization**.
- ❑ **USER** are *sold* products from **Auction-Platform**. Names, Userid, Username, Passwords, Shipping Address, Mailing Address, Payment Method, Email are the attributes of the **USER** of our database model. User will also be able to update their personal details.

## EER DIAGRAM





# SCHEMA





## Database Tables (examples)

### Creating a table for Products:

```
CREATE TABLE product
(
    productid VARCHAR(10) NOT NULL,
    pname      VARCHAR(20) NOT NULL,
    color      VARCHAR(20) NOT NULL,
    size       VARCHAR(20) NOT NULL,
    ptype      VARCHAR(20) NOT NULL,
    baseprice  VARCHAR(10) NOT NULL,
    PRIMARY KEY (productid)
);
```

### Creating a table for Auction Platform:

```
CREATE TABLE auctionplatform
(
    webaddress   VARCHAR(10) NOT NULL,
    productid    VARCHAR(10) NOT NULL,
    quantity     VARCHAR(10) NOT NULL,
    departmentid VARCHAR(10) NOT NULL,
    PRIMARY KEY (webaddress, productid, departmentid),
    FOREIGN KEY (productid) REFERENCES
sellable(productid),
    FOREIGN KEY (departmentid) REFERENCES
departments(departmentid));
```

# Script to populate the database (examples)

## Script to Populate data for Products:

```
insert into product (productid, pname, color, size, ptype, baseprice) values ('7JE087', 'Foxtrot Zulu Romeo', 'Crimson', 'M', 'Gloves', '$13.72');
```

## Script to Populate data for Auction Platform:

```
insert into auctionplatform (productid, webaddress, quantity, departmentid) values ('7JE087', 'www.turnitus.com/7JE087', 2, 4);
```

## Script to Populate data for User info :

```
insert into userinfo (userid, fname, lname, email, address, shippingaddress, paymentmethod, password, mobileno) values ('26-1809605', 'Mella', 'Adamowicz', 'madamowicz0@washingtonpost.com', '64 Carioca Junction', '3 Merrick Parkway', 'Credit Card', 'SVvaVj8bOkP', '123-868-5804');
```



A sample of populating the data  
for Products table that has  
productid as the primary key!

productid	pname	color	size	ptype	baseprice
0GV607	Whiskey Papa	Aquamarine	XS	Socks	\$35.44
0TO518	Quebec Whiskey Hotel	Crimson	XS	Pants	\$31.50
0VY490	Victor Mike	Blue	2XL	Shoes	\$19.32
1BI665	Tango Alfa Mike	Turquoise	2XL	Gloves	\$24.42
1JH860	Lima Yankee November	Turquoise	2XL	T-Shirt	\$40.92
1OM925	Charlie Romeo	Fuscia	3XL	Shoes	\$39.93
2PM050	Oscar Uniform Sierra	Crimson	M	Suits	\$30.12
3HK683	Kilo Whiskey	Crimson	S	Shirts	\$9.65
3HQ754	Mike Whiskey	Blue	M	Shirts	\$42.48
3NM639	Alfa Echo	Puce	S	Sweater	\$43.28
3UI559	November Echo	Green	XL	Shirts	\$18.82
3ZA006	Echo Victor Papa	Purple	S	Sweater	\$15.58
4VN600	Sierra Papa	Goldenrod	3XL	Pants	\$42.85



## Database Views

create view INFO

AS Select p.productid 'PID', p.pname 'PName',  
p.color 'Color', p.size 'Size',p.ptype 'Type',  
p.baseprice 'Price',a.quantity 'Quantity'

FROM product p, auctionplatform a  
WHERE p.productid = a.productid;

Server: 127.0.0.1 » Database: turnout » View: info

Browse Structure SQL Search Insert Export Privileges Operations

+ Options

			PID	PName	Color	Size	Type	Price	1	Quantity
<input type="checkbox"/>	Edit	Copy	Delete	4YM792	November Hotel	Crimson	S	Sweater	\$11.09	7
<input type="checkbox"/>	Edit	Copy	Delete	7JE087	Foxtrot Zulu Romeo	Crimson	M	Gloves	\$13.72	2
<input type="checkbox"/>	Edit	Copy	Delete	3ZA006	Echo Victor Papa	Purple	S	Sweater	\$15.58	9
<input type="checkbox"/>	Edit	Copy	Delete	7DO295	X-ray Sierra Romeo	Fuscia	L	T-Shirt	\$18.60	1
<input type="checkbox"/>	Edit	Copy	Delete	0VY490	Victor Mike	Blue	2XL	Shoes	\$19.32	11
<input type="checkbox"/>	Edit	Copy	Delete	7HE473	Victor Mike India	Red	S	T-Shirt	\$20.35	5
<input type="checkbox"/>	Edit	Copy	Delete	6TF598	X-ray Echo	Orange	XL	Sweater	\$30.52	12
<input type="checkbox"/>	Edit	Copy	Delete	0TO518	Quebec Whiskey Hotel	Crimson	XS	Pants	\$31.50	20
<input type="checkbox"/>	Edit	Copy	Delete	8OP598	X-ray Mike	Maroon	XL	Shoes	\$35.43	6
<input type="checkbox"/>	Edit	Copy	Delete	1OM925	Charlie Romeo	Fuscia	3XL	Shoes	\$39.93	4
<input type="checkbox"/>	Edit	Copy	Delete	1JH860	Lima Yankee November	Turquoise	2XL	T-Shirt	\$40.92	12
<input type="checkbox"/>	Edit	Copy	Delete	4VN600	Sierra Papa	Goldenrod	3XL	Pants	\$42.85	5
<input type="checkbox"/>	Edit	Copy	Delete	3NM639	Alfa Echo	Puce	S	Sweater	\$43.28	2
<input type="checkbox"/>	Edit	Copy	Delete	5UP551	Tango Papa November	Red	M	Hat	\$9.81	2

Check all With selected: Edit Copy Delete Export

Show all Number of rows: All Filter rows: Search this table

# Database Queries using the View created

```
SELECT *  
FROM info  
WHERE SUBSTRING(Price,2,5) < 22.22;
```

The screenshot shows a database management interface with a toolbar at the top containing buttons for Browse, Structure, SQL, Search, Insert, Export, Privileges, and Operations. The main area displays the SQL query: `SELECT * FROM info WHERE SUBSTRING(Price,2,5) < 22.22 ORDER BY `Price` ASC`. Below the query, there are controls for 'Show all', 'Number of rows' (set to All), and a 'Filter rows' search box. The query results are displayed in a table with columns: PID, PName, Color, Size, Type, Price, and Quantity. The table contains 7 rows of data. At the bottom, there are controls for 'Check all', 'With selected' (with Edit, Copy, Delete, and Export options), and another set of 'Show all', 'Number of rows', and 'Filter rows' controls. A 'Query results operations' button is located at the bottom left.

	PID	PName	Color	Size	Type	Price	Quantity
<input type="checkbox"/>	4YM792	November Hotel	Crimson	S	Sweater	\$11.09	7
<input type="checkbox"/>	7JE087	Foxtrot Zulu Romeo	Crimson	M	Gloves	\$13.72	2
<input type="checkbox"/>	3ZA006	Echo Victor Papa	Purple	S	Sweater	\$15.58	9
<input type="checkbox"/>	7DO295	X-ray Sierra Romeo	Fuscia	L	T-Shirt	\$18.60	1
<input type="checkbox"/>	0VY490	Victor Mike	Blue	2XL	Shoes	\$19.32	11
<input type="checkbox"/>	7HE473	Victor Mike India	Red	S	T-Shirt	\$20.35	5
<input type="checkbox"/>	5UP551	Tango Papa November	Red	M	Hat	\$9.81	2



## Database Queries using the View created (cont.)

```
SELECT *  
FROM info  
WHERE size = 'S';
```

☒ Show all | Number of rows: All | Filter rows: Search this table

+ Options

				PID	PName	Color	Size	Type	Price	Quantity
<input type="checkbox"/>				4YM792	November Hotel	Crimson	S	Sweater	\$11.09	7
<input type="checkbox"/>				3ZA006	Echo Victor Papa	Purple	S	Sweater	\$15.58	9
<input type="checkbox"/>				7HE473	Victor Mike India	Red	S	T-Shirt	\$20.35	5
<input type="checkbox"/>				3NM639	Alfa Echo	Puce	S	Sweater	\$43.28	2

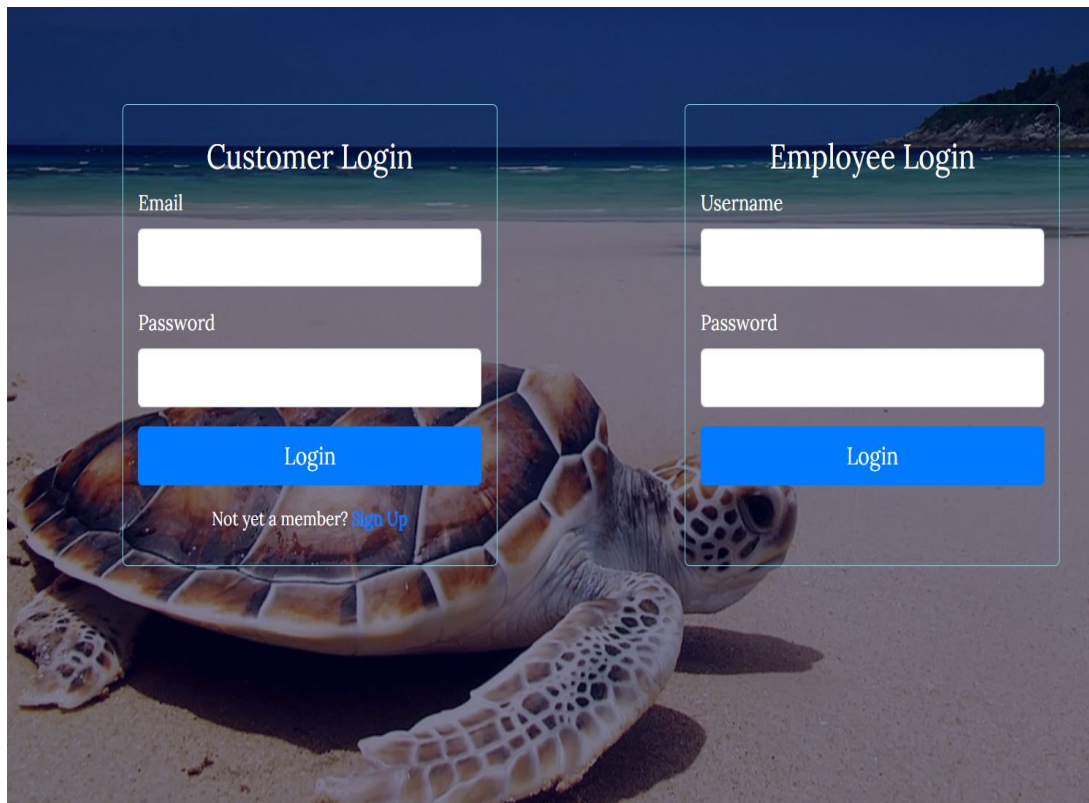
☐ Check all | With selected: Edit Copy Delete Export

☒ Show all | Number of rows: All | Filter rows: Search this table



# Script to create Web Interface

```
4 <head>
5 <meta charset="UTF-8">
6 <!--Bootstrap 4 css-->
7 <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/bootstrap.min.css"
  integrity="sha384-Vkoo8x4CGs03+Hhxv8T/QsPaKhKtU6ug5TOEhV6gBiFEWpGN9Mh9O3q9gijjh" crossorigin="anonymous">
8
9 <link rel="stylesheet" href="style.css">
10 <title>TURNIT</title>
11
12 <style>
13 body {
14   background: linear-gradient(rgba(0,0,50,0.5),rgba(0,0,50,0.5)),url(image.jpg);
15   background-size: cover;
16   background-position: center;
17 }
18 </style>
19 </head>
20
21 <body>
22 <div class="container">
23 <div class="row">
24 <div class="col-md-4 offset-md-4 form-div login">
25 <form action="login.controller.php" method="post">
26 <h3 class="text-center">Customer Login</h3>
27
28
29 <div class="form-group">
30 <label for="email"><span>Email</span></label>
31 <input type="text" name="email" class="form-control form-control-lg">
32 </div>
33
34 <div class="form-group">
35 <label for="password"><span>Password</span></label>
36 <input type="text" name="password" class="form-control form-control-lg">
37 </div>
38
39 <div class="form-group">
40 <button type="submit" name="login-btn" class="btn btn-primary btn-block btn-lg">Login</button>
41 </div>
42 <p class="text-center"><span>Not yet a member? </span> <a href="signup.php">Sign Up</a></p>
43 </form>
44 </div>
45
46 <div class="col-md-4 offset-md-4 form-div login">
47 <form action="emp-login.controller.php" method="post">
48 <h3 class="text-center">Employee Login</h3>
49
50
51 <div class="form-group">
52 <label for="username"><span>Username</span></label>
53 <input type="text" name="username" class="form-control form-control-lg">
54 </div>
55
56 <div class="form-group">
57 <label for="password-emp"><span>Password</span></label>
58 <input type="text" name="password-emp" class="form-control form-control-lg">
59 </div>
60
61
```





# View of Data files with realistic data contents

Server: 127.0.0.1 » Database: turnit » View: info

Browse Structure SQL Search Insert Export Privileges Operations

+ Options

		PID	PName	Color	Size	Type	Price	1	Quantity
<input type="checkbox"/>	Edit Copy Delete	4YM792	November Hotel	Crimson	S	Sweater	\$11.09		7
<input type="checkbox"/>	Edit Copy Delete	7JE087	Foxtrot Zulu Romeo	Crimson	M	Gloves	\$13.72		2
<input type="checkbox"/>	Edit Copy Delete	3ZA006	Echo Victor Papa	Purple	S	Sweater	\$15.58		9
<input type="checkbox"/>	Edit Copy Delete	7DO295	X-ray Sierra Romeo	Fuscia	L	T-Shirt	\$18.60		1
<input type="checkbox"/>	Edit Copy Delete	0VY490	Victor Mike	Blue	2XL	Shoes	\$19.32		11
<input type="checkbox"/>	Edit Copy Delete	7HE473	Victor Mike India	Red	S	T-Shirt	\$20.35		5
<input type="checkbox"/>	Edit Copy Delete	6TF598	X-ray Echo	Orange	XL	Sweater	\$30.52		12
<input type="checkbox"/>	Edit Copy Delete	0TO518	Quebec Whiskey Hotel	Crimson	XS	Pants	\$31.50		20
<input type="checkbox"/>	Edit Copy Delete	8OP598	X-ray Mike	Maroon	XL	Shoes	\$35.43		6
<input type="checkbox"/>	Edit Copy Delete	1OM925	Charlie Romeo	Fuscia	3XL	Shoes	\$39.93		4
<input type="checkbox"/>	Edit Copy Delete	1JH860	Lima Yankee November	Turquoise	2XL	T-Shirt	\$40.92		12
<input type="checkbox"/>	Edit Copy Delete	4VN600	Sierra Papa	Goldenrod	3XL	Pants	\$42.85		5
<input type="checkbox"/>	Edit Copy Delete	3NM639	Alfa Echo	Puce	S	Sweater	\$43.28		2
<input type="checkbox"/>	Edit Copy Delete	5UP551	Tango Papa November	Red	M	Hat	\$9.81		2

Check all With selected: Edit Copy Delete Export

Show all Number of rows: All Filter rows: Search this table

Server: 127.0.0.1 » Database: turnit » View: info

Browse Structure SQL Search Insert Export Privileges Operations

SELECT \* FROM info WHERE SUBSTRING(Price,2,5) < 22.22 ORDER BY 'Price' ASC

Show all Number of rows: All Filter rows: Search this table

+ Options

		PID	PName	Color	Size	Type	Price	1	Quantity
<input type="checkbox"/>	Edit Copy Delete	4YM792	November Hotel	Crimson	S	Sweater	\$11.09		7
<input type="checkbox"/>	Edit Copy Delete	7JE087	Foxtrot Zulu Romeo	Crimson	M	Gloves	\$13.72		2
<input type="checkbox"/>	Edit Copy Delete	3ZA006	Echo Victor Papa	Purple	S	Sweater	\$15.58		9
<input type="checkbox"/>	Edit Copy Delete	7DO295	X-ray Sierra Romeo	Fuscia	L	T-Shirt	\$18.60		1
<input type="checkbox"/>	Edit Copy Delete	0VY490	Victor Mike	Blue	2XL	Shoes	\$19.32		11
<input type="checkbox"/>	Edit Copy Delete	7HE473	Victor Mike India	Red	S	T-Shirt	\$20.35		5
<input type="checkbox"/>	Edit Copy Delete	5UP551	Tango Papa November	Red	M	Hat	\$9.81		2

Check all With selected: Edit Copy Delete Export

Show all Number of rows: All Filter rows: Search this table

Query results operations



# How our Database and Interface fulfills Requirement?

- A customer can buy clothing products from an auction platform, which is implemented in our company interface by logging in with their accounts.
- A customer will be able to update his/her own information (e.g: mobile number).
- If a new user wants to login, then an interface is built for a customer to register.
- The database is updated based on the products our company have.
- A customer will have options to choose from the products they are interested in or a product within his/her budget.
- An employee can login and see all the products we have and had, and the employee can update the database similarly (insert/delete/update).



## **Influence in our lifestyle**

- Understood the online return induced problem and tried to address
- Buying best fit product online than returning later
- Try to buy product from companies selling refurbished or used product
- Knowledge on creating and managing an online database system
- Learned to work in a team in an attempt to solve real life problem



# References

[1]. <https://www.salecycle.com/blog/featured/ecommerce-returns-2018-stats-trends/>

[2]. <https://medium.com/@TruleSolutions/environmental-impacts-on-product-returns-e91d2cdf630d>



# QUESTIONS ?

