

ITEC301 – Project Deliverable 2



Cover page

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	During the completion of this deliverable the database was fully designed as well as the visual design and understanding of the system was completed.	Error!
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1. Introduction

In this project, an E-Commerce website is being created for a business known as L'Elegance Beauty. This project includes a database created in mySQL and a website created with HTML, CSS, JavaScript and PHP.

This document includes the designing and development documentation of the database and website.

2. Designing

2.1 Visual Design

a. CRC cards

Class : user	
Responsibilities	Collaboration
Know name	
Know Surname	
Know Contact number	
Know Email	
Know Password	
Know whether activated	
Know whether admin	

Class : service	
Responsibilities	Collaboration
Know service name	
Know description	
Know price	
Know category	category

Class : category	
Responsibilities	Collaboration
Know category name	

Class : itembrand	
Responsibilities	Collaboration
Know brand name	

Class : invoiceitem	
Responsibilities	Collaboration
Know part of what order it is	order
Know all details about item	item
Know quantity of items	
Know price	
Know the total price	

Class : order	
Responsibilities	Collaboration
Know what user the order belongs to	user
Know the status on completion	
Know the status on collection	
Know the date of order	
Know the total price of the order	

Class : shoppingcartitem	
Responsibilities	Collaboration
Know all details of the item	item
Know what user added the item to the cart	user
Know the quantity of the item	
Know the total price of this item	

Class : payment	
Responsibilities	Collaboration
Know the order	order
Know if the payment is completed	

Class : item	
Responsibilities	Collaboration
Know item name	
Know item description	
Know item price	
Know category	category
Know brand	brand
Know image of item	
Know if item is activated	

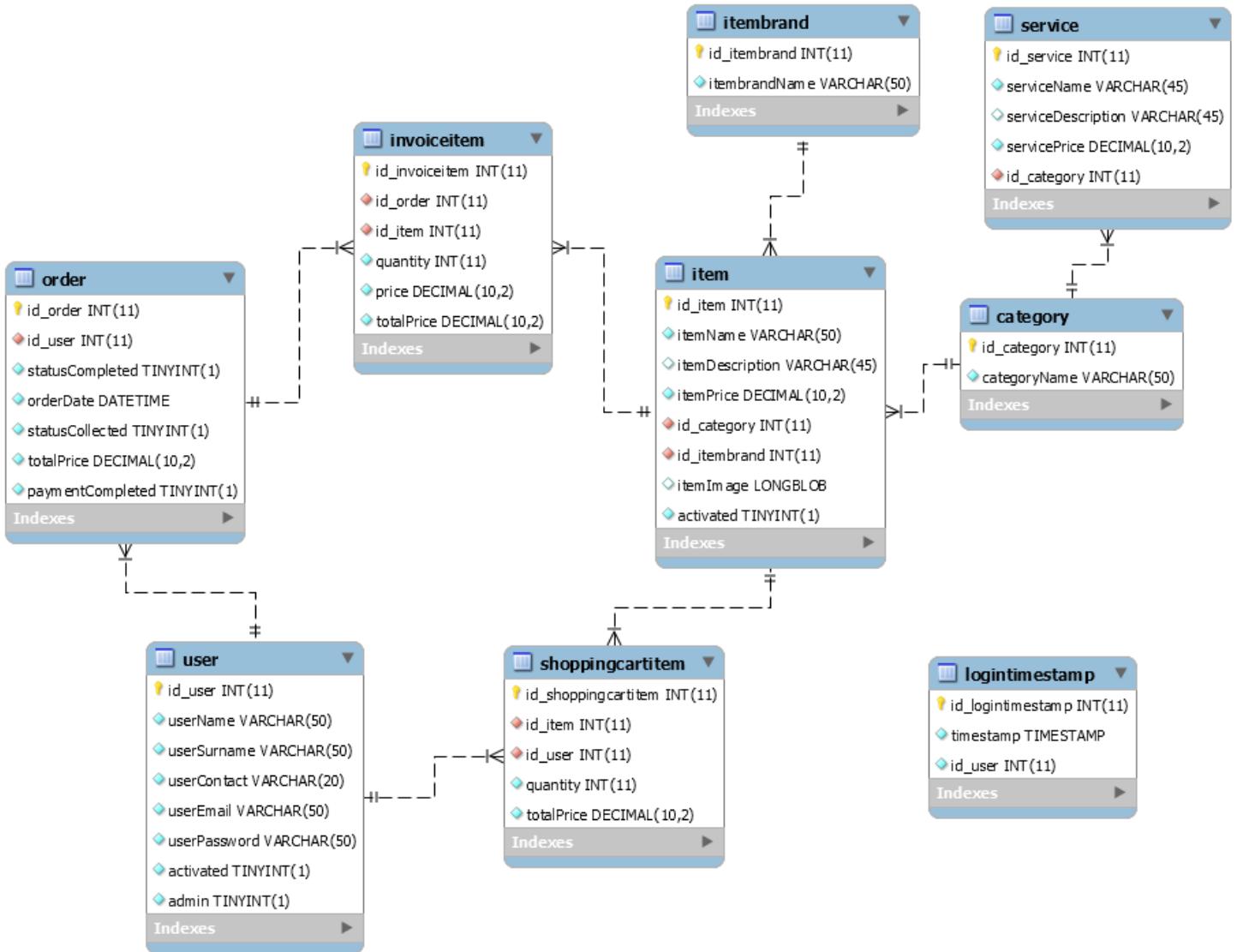
Class : logintimestamp	
Responsibilities	Collaboration
Know timestamp of user logging in	
Know what user logged in	user

Class : DBConnect	
Responsibilities	Collaboration
Know the host	
Know the username	
Know the password	
Know the database	
Know the connection	
Connect to the database	
Close the database connection	
Insert a user into database	user
Insert shopping cart item into database	shoppingcartitem
Insert item into database	item
Insert item brand into database	itembrand
Insert category into database	category
Insert invoice item into database	invoiceitem
Insert order into database	order
Insert payment into database	payment
Insert service into database	service
Insert login timestamp into database	logintimestamp
Update a user in database	user
Update shopping cart item in database	shoppingcartitem
Update item in database	item
Update item brand in database	itembrand
Update category in database	category
Update invoice item in database	invoiceitem
Update order in database	order
Update payment in database	payment
Update service in database	service
Update login timestamp in database	Logintimestamp
Remove a user in database	user
Remove shopping cart item in database	shoppingcartitem
Remove item in database	item
Remove item brand in database	itembrand
Remove category in database	category
Remove invoice item in database	invoiceitem
Remove order in database	order
Remove payment in database	payment
Remove service in database	service
Remove login timestamp in database	Logintimestamp

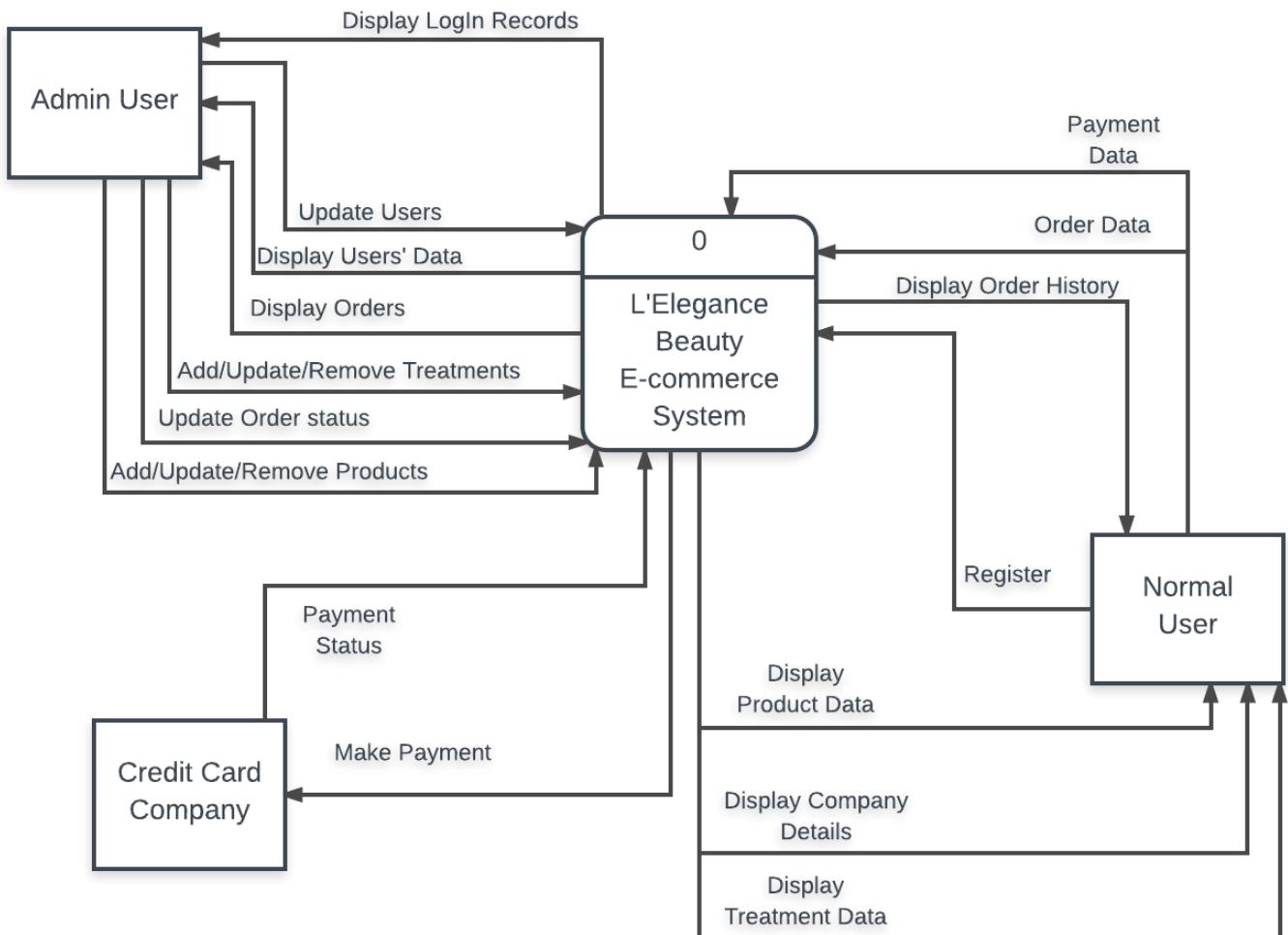
(Matemera, 2017)

(Bennet, McRobb, 2010)

b. Entity Relationship Diagram

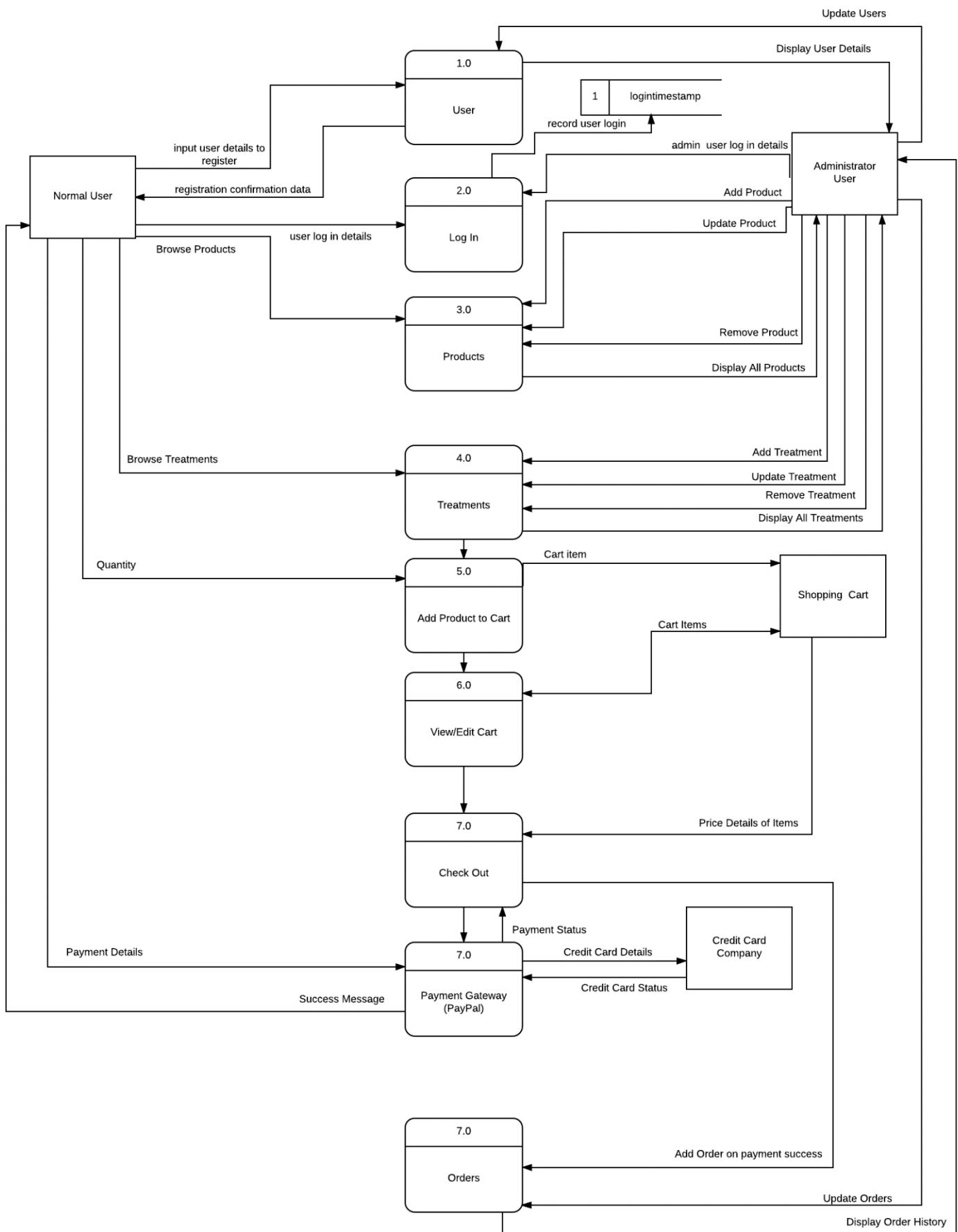


c. Context Diagram



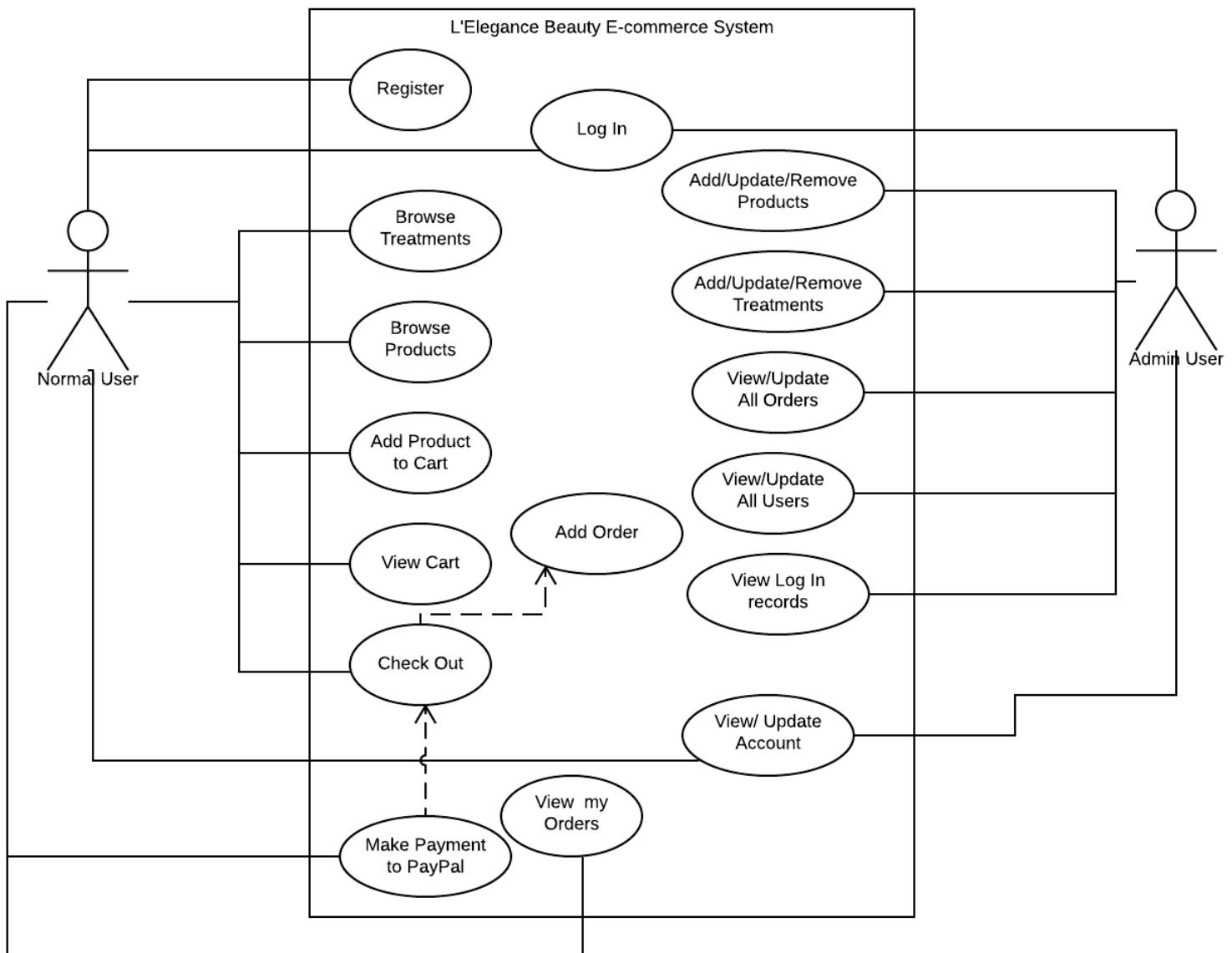
(Valacich, George, Hoffer. 2015)

d. DFD



(Lucidchart. 2017)

e. Use Case Diagram

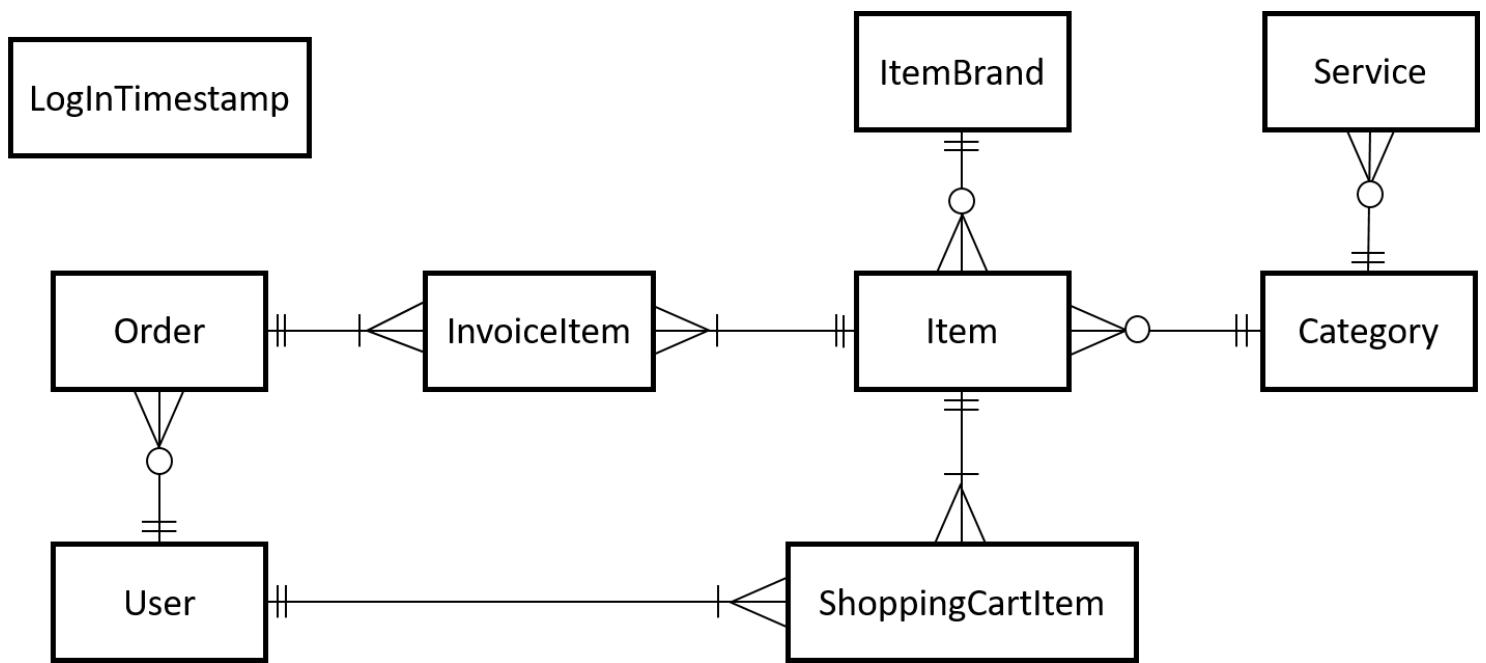


(Levy. 2014)

2.2 Database Design

a. Identification of entities and entity relationship modelling

- category
- invoiceitem
- item
- itembrand
- logintimestamp
- order
- service
- shoppingcartitem
- user



(Visagie, 2016)

b. Identification of relationship types for entities

Entities	Relationship type	Description
Category to Service	Category entity have one to many relationship with Service	For each row in Category there can be many related rows in Service. A Service record cannot exist without being related to a specific Category record. A Category record can exist without being related to any Service records.
Category to Item	Category entity have one to many relationship with Item	For each row in Category there can be many related rows in Item. An Item record cannot exist without being related to a specific Category record. A Category record can exist without being related to any Item records.
ItemBrand to Item	ItemBrand entity have one to many relationship with Item	For each row in ItemBrand there can be many related rows in Item. An Item record cannot exist without being related to a specific ItemBrand record. An ItemBrand record can exist without being related to any Item records.
Item to ShoppingCartItem	Item entity have one to many relationship with ShoppingCartItem	For each row in Item there can be many related rows in ShoppingCartItem. A ShoppingCartItem record cannot exist without being related to a specific Item record.
User to ShoppingCartItem	User entity have one to many relationship with ShoppingCartItem	For each row in User there can be many related rows in ShoppingCartItem. A ShoppingCartItem record cannot exist without being related to a specific User record.
User to Order	User entity have one to many relationship with Order	For each row in User there can be many related rows in Order. An Order record cannot exist without being related to a specific User record. A User record can exist without being related to any Order records.
Order to Invoiceltem	Order entity have one to many relationship with Invoiceltem	For each row in Order there can be many related rows in Invoiceltem. An Invoiceltem record cannot exist without being related to a specific Order record.
Item to Invoiceltem	Item entity have one to many relationship with Invoiceltem	For each row in Item there can be many related rows in Invoiceltem. An Invoiceltem record cannot exist without being related to a specific Item record.

c. Determination of attribute domains

Entity	Attributes	Attribute Domain where applicable
Item	id_item	1 to ($10^{11} - 1$)
	itemName	
	itemDescription	
	itemPrice	
	itemImage	
	activated	'True' or 'False'
Category	id_category	1 to ($10^{11} - 1$)
	categoryName	
InvoiceItem	id_invoiceitem	1 to ($10^{11} - 1$)
	quantity	1 to ($10^{11} - 1$)
	price	
	totalPrice	
Order	id_order	1 to ($10^{11} - 1$)
	statusCompleted	'True' or 'False'
	statusCollected	'True' or 'False'
	orderDate	
	totalPrice	
	paymentCompleted	'True' or 'False'
ItemBrand	id_itembrand	1 to ($10^{11} - 1$)
	itembrandName	
ShoppingCartItem	Id_shoppingcartitem	1 to ($10^{11} - 1$)
	quantity	1 to ($10^{11} - 1$)
	totalPrice	
Service	id_service	1 to ($10^{11} - 1$)
	serviceName	
	serviceDescription	
	servicePrice	
User	id_user	1 to ($10^{11} - 1$)
	userName	
	userSurname	
	userContact	
	userEmail	
	userPassword	
	admin	'True' or 'False'
	activated	'True' or 'False'
LoginTimestamp	id_logintimestamp	1 to ($10^{11} - 1$)
	timestamp	
	id_user	1 to ($10^{11} - 1$)

d. Determination of candidate, primary and alternative key attributes

Entity	Attributes	Keys
Item	id_item	Candidate Key then chosen as Primary Key
	itemName	
	itemDescription	
	itemPrice	
	itemImage	
	activated	
	id_category	Foreign Key
Category	id_category	Candidate Key then chosen as Primary Key
	categoryName	
InvoiceItem	id_invoiceitem	Candidate Key then chosen as Primary Key
	quantity	
	price	
	totalPrice	
	id_item	Foreign Key
	id_order	Foreign Key
Order	id_order	Candidate Key then chosen as Primary Key
	statusCompleted	
	statusCollected	
	orderDate	
	totalPrice	
	paymentCompleted	
	id_user	Foreign Key
ItemBrand	id_itembrand	Candidate Key then chosen as Primary Key
	itembrandName	
ShoppingCartItem	Id_shoppingcartitem	Candidate Key then chosen as Primary Key
	quantity	
	totalPrice	
	id_user	Foreign Key
	id_item	Foreign Key
Service	id_service	Candidate Key then chosen as Primary Key
	serviceName	
	serviceDescription	
	servicePrice	
	id_category	Foreign Key
User	id_user	Candidate Key then chosen as Primary Key
	userName	

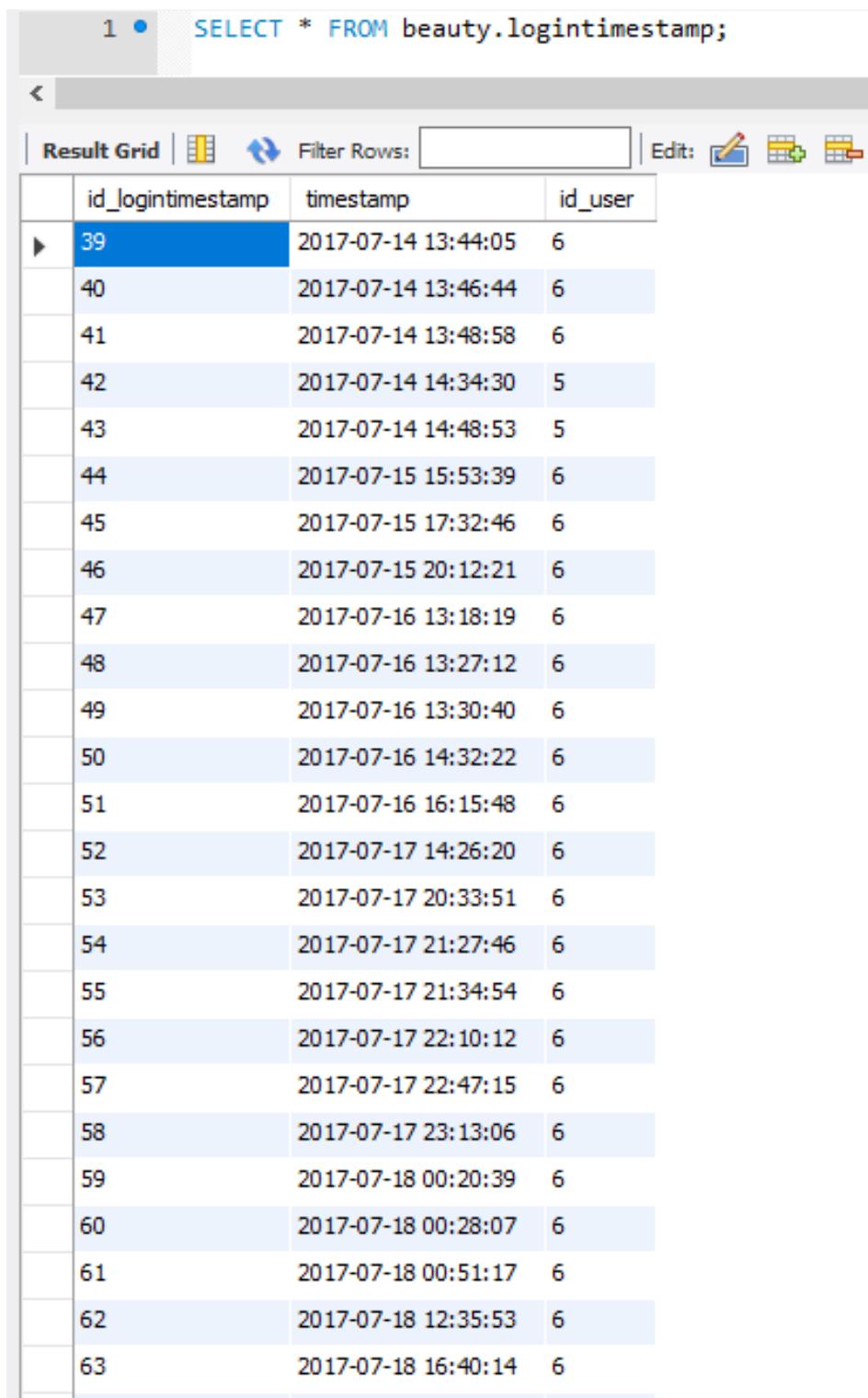
	userSurname	
	userContact	
	userEmail	Candidate Key then Alternative Key
	userPassword	
	admin	
	activated	
LoginTimestamp	id_logintimestamp	Candidate Key then chosen as Primary Key
	timestamp	
	id_user	

e. Timestamps

Timestamps are used to record events that occurred at a specific time in a computer system.

In this project, a logintimestamp table was created as a log table to record the time and date of when a user logs in as well as the user's id.

The following screenshot shows the logintimestamp table:



A screenshot of the MySQL Workbench interface showing the results of a SQL query. The query is:

```
1 •   SELECT * FROM beauty.logintimestamp;
```

The results are displayed in a "Result Grid". The grid has four columns: "id_logintimestamp", "timestamp", and "id_user". There are 35 rows of data, indexed from 39 to 63. The "id_logintimestamp" column contains integers, the "timestamp" column contains dates and times, and the "id_user" column contains the value 6 for all rows.

	id_logintimestamp	timestamp	id_user
▶	39	2017-07-14 13:44:05	6
	40	2017-07-14 13:46:44	6
	41	2017-07-14 13:48:58	6
	42	2017-07-14 14:34:30	5
	43	2017-07-14 14:48:53	5
	44	2017-07-15 15:53:39	6
	45	2017-07-15 17:32:46	6
	46	2017-07-15 20:12:21	6
	47	2017-07-16 13:18:19	6
	48	2017-07-16 13:27:12	6
	49	2017-07-16 13:30:40	6
	50	2017-07-16 14:32:22	6
	51	2017-07-16 16:15:48	6
	52	2017-07-17 14:26:20	6
	53	2017-07-17 20:33:51	6
	54	2017-07-17 21:27:46	6
	55	2017-07-17 21:34:54	6
	56	2017-07-17 22:10:12	6
	57	2017-07-17 22:47:15	6
	58	2017-07-17 23:13:06	6
	59	2017-07-18 00:20:39	6
	60	2017-07-18 00:28:07	6
	61	2017-07-18 00:51:17	6
	62	2017-07-18 12:35:53	6
	63	2017-07-18 16:40:14	6

f. Views

vw_item: This view selects all information related to the item table in the database. The following shows the query to create the view:

```
CREATE
  ALGORITHM = UNDEFINED
  DEFINER = `root`@`localhost`
  SQL SECURITY DEFINER
VIEW `vw_item` AS
  SELECT
    `item`.`id_item` AS `ItemID`,
    `item`.`itemName` AS `ItemName`,
    `item`.`itemDescription` AS `ItemDescription`,
    `item`.`itemPrice` AS `ItemPrice`,
    `item`.`activated` AS `activated`,
    `itembrand`.`id_itembrand` AS `BrandID`,
    `itembrand`.`itembrandName` AS `Brand`,
    `category`.`categoryName` AS `Category`,
    `category`.`id_category` AS `CategoryID`,
    `item`.`itemImage` AS `Image`
  FROM
    ((`item`
    JOIN `itembrand` ON ((`item`.`id_itembrand` = `itembrand`.`id_itembrand`)))
    JOIN `category` ON ((`item`.`id_category` = `category`.`id_category`)))
```

vw_cart: This view selects all information related to the shoppingcartitem table.

The following shows the query to create the view:

```
CREATE
  ALGORITHM = UNDEFINED
  DEFINER = `root`@`localhost`
  SQL SECURITY DEFINER
VIEW `vw_cart` AS
  SELECT
    `shoppingcartitem`.`id_shoppingcartitem` AS `shoppingcartitemID`,
    `shoppingcartitem`.`quantity` AS `quantity`,
    `shoppingcartitem`.`totalPrice` AS `totalPrice`,
    `shoppingcartitem`.`id_user` AS `userID`,
    `vw_item`.`ItemID` AS `ItemID`,
    `vw_item`.`ItemName` AS `ItemName`,
    `vw_item`.`ItemDescription` AS `ItemDescription`,
    `vw_item`.`ItemPrice` AS `ItemPrice`,
    `vw_item`.`BrandID` AS `BrandID`,
    `vw_item`.`CategoryID` AS `CategoryID`,
    `vw_item`.`Brand` AS `BrandName`,
    `vw_item`.`Category` AS `CategoryName`,
    `vw_item`.`Image` AS `Image`
  FROM
    (`shoppingcartitem`
    JOIN `vw_item` ON ((`shoppingcartitem`.`id_item` = `vw_item`.`ItemID`)))
```

vw_order: This view selects all information related to the order table in the database. This view includes information from the vw_item view, invoiceitem table and the order table.

The following shows the query to create the view:

```
CREATE
    ALGORITHM = UNDEFINED
    DEFINER = `root`@`localhost`
    SQL SECURITY DEFINER
VIEW `vw_order` AS
    SELECT
        `order`.`id_order` AS `OrderID`,
        `order`.`statusCompleted` AS `orderStatusCom`,
        `order`.`orderDate` AS `orderDate`,
        `order`.`statusCollected` AS `orderStatusCol`,
        `order`.`id_user` AS `UserID`,
        `order`.`totalPrice` AS `totalPrice`,
        `order`.`paymentCompleted` AS `paymentCompleted`,
        `invoiceitem`.`id_invoiceitem` AS `invoiceitemID`,
        `invoiceitem`.`quantity` AS `quantity`,
        `invoiceitem`.`price` AS `price`,
        `invoiceitem`.`totalPrice` AS `invoiceTotalPrice`,
        `vw_item`.`ItemID` AS `ItemID`,
        `vw_item`.`ItemName` AS `ItemName`,
        `vw_item`.`ItemDescription` AS `ItemDescription`,
        `vw_item`.`ItemPrice` AS `ItemPrice`,
        `vw_item`.`BrandID` AS `BrandID`,
        `vw_item`.`CategoryID` AS `CategoryID`,
        `vw_item`.`Brand` AS `BrandName`,
        `vw_item`.`Category` AS `CategoryName`,
        `vw_item`.`Image` AS `Image`,
        `vw_item`.`activated` AS `activated`
    FROM
        ((`invoiceitem`
        JOIN `vw_item` ON ((`invoiceitem`.`id_item` = `vw_item`.`ItemID`)))
        JOIN `order` ON ((`invoiceitem`.`id_order` = `order`.`id_order`)))
```

vw_service: This view selects all information related to the service table in the database.

The following shows the query to create the view:

```
CREATE
    ALGORITHM = UNDEFINED
    DEFINER = `root`@`localhost`
    SQL SECURITY DEFINER
VIEW `vw_service` AS
    SELECT
        `service`.`id_service` AS `ServiceID`,
        `service`.`serviceName` AS `ServiceName`,
        `service`.`serviceDescription` AS `ServiceDescription`,
        `service`.`servicePrice` AS `ServicePrice`,
        `category`.`categoryName` AS `Category`
    FROM
        (`service`
        JOIN `category` ON ((`service`.`id_category` = `category`.`id_category`)))
```

`vw_uncompletedorder`: This view selects information of all the orders where the `statusCompleted` field equals ‘false’.

The following shows the query to create the view:

```
CREATE
  ALGORITHM = UNDEFINED
  DEFINER = `root`@`localhost`
  SQL SECURITY DEFINER
VIEW `vw_uncompletedorder` AS
SELECT
  `order`.`id_order` AS `OrderID`,
  `order`.`statusCompleted` AS `OrderCompleted`,
  `order`.`orderDate` AS `orderDate`,
  `order`.`statusCollected` AS `orderStatusCol`,
  `order`.`totalPrice` AS `totalPrice`,
  `user`.`id_user` AS `UserID`,
  `user`.`userName` AS `UserName`,
  `user`.`userSurname` AS `UserSurname`,
  `user`.`userEmail` AS `UserEmail`,
  `order`.`paymentCompleted` AS `paymentCompleted`
FROM
  (`order`
  JOIN `user` ON ((`order`.`id_user` = `user`.`id_user`)))
WHERE
  (`order`.`statusCompleted` = 0)
ORDER BY `order`.`orderDate`
```

`vw_completedorder`: This view selects information of all the orders where the `statusCompleted` field equals ‘true’.

The following shows the query to create the view:

```
CREATE
  ALGORITHM = UNDEFINED
  DEFINER = `root`@`localhost`
  SQL SECURITY DEFINER
VIEW `vw_completedorders` AS
SELECT
  `order`.`id_order` AS `OrderID`,
  `order`.`statusCompleted` AS `OrderCompleted`,
  `order`.`orderDate` AS `orderDate`,
  `order`.`statusCollected` AS `orderStatusCol`,
  `order`.`totalPrice` AS `totalPrice`,
  `user`.`id_user` AS `UserID`,
  `user`.`userName` AS `UserName`,
  `user`.`userSurname` AS `UserSurname`,
  `user`.`userEmail` AS `UserEmail`,
  `order`.`paymentCompleted` AS `paymentCompleted`
FROM
  (`order`
  JOIN `user` ON ((`order`.`id_user` = `user`.`id_user`)))
WHERE
  (`order`.`statusCompleted` = 1)
ORDER BY `order`.`orderDate`
```

g. Triggers

user_BEFORE_INSERT:

This trigger ensures that when a record is inserted into the user table and the admin value equals “ ” then the admin value will be made “0”, which means false.

The following shows the query to create the trigger:

```
CREATE DEFINER='root'@'localhost' TRIGGER `beauty`.`user_BEFORE_INSERT` BEFORE INSERT ON `user` FOR EACH ROW
BEGIN
| IF (NEW.admin = "") THEN
|   SET NEW.admin = "0";
| END IF;
| IF (NEW.activated = "") THEN
|   SET NEW.activated = "1";
| END IF;
END
```

order_BEFORE_INSERT:

This triggers ensures that when a record is inserted into the order table and the statusCompleted value= “0” and the statusCollected value=”1” then the value of statusCollected will be made “0” since an order can not be collected if it has not yet been completed.

The following shows the query to create the trigger:

```
CREATE DEFINER='root'@'localhost' TRIGGER `beauty`.`order_BEFORE_INSERT` BEFORE INSERT ON `order` FOR EACH ROW
BEGIN
IF (NEW.statusCompleted = "0" && NEW.statusCollected = "1") THEN
SET NEW.statusCollected = "0";
END IF;
END
```

order_BEFORE_UPDATE:

This triggers ensures that when a record is updated of the order table and the statusCompleted value= “0” and the statusCollected value=”1” then the value of statusCollected will be made “0” since an order can not be collected if it has not yet been completed.

The following shows the query to create the trigger:

```
CREATE DEFINER='root'@'localhost' TRIGGER `beauty`.`order_BEFORE_UPDATE` BEFORE UPDATE ON `order` FOR EACH ROW
BEGIN
| IF (NEW.statusCompleted = "0" && NEW.statusCollected = "1") THEN
|   SET NEW.statusCollected = "0";
| END IF;
END
```

h. Stored Procedures

CalculateNumberLogIn:

This stored procedure calculates the amount of users that logged in on the current day.

The following shows the query to create the stored procedure:

```
CREATE DEFINER='root'@'localhost' PROCEDURE `CalculateNumberLogIn`()  
BEGIN  
SELECT COUNT(*) AS `count`  
FROM logintimestamp  
WHERE DATE(`timestamp`) = CURDATE();  
END
```

CountUncompletedOrders:

This stored procedure calculates the amount of Orders that is not yet completed, in order to show the admin user how many orders still needs to be completed.

The following shows the query to create the stored procedure:

```
CREATE DEFINER='root'@'localhost' PROCEDURE `CountUncompletedOrders`()  
BEGIN  
SELECT COUNT(*) AS `count`  
FROM `order`  
WHERE `statusCompleted` = "0";  
END
```

NumberOrdersToCollect:

This stored procedure calculates the number of orders that are ready for collection.

The following shows the query to create the stored procedure:

```
CREATE DEFINER='root'@'localhost' PROCEDURE `NumberOrdersToCollect`()  
BEGIN  
SELECT COUNT(*) AS `count`  
FROM `order`  
WHERE `statusCompleted` = "1" && `statusCollected`="0";  
END
```

(W3schools. 2017)

3. Development

3.1 Database

- Data Definition Language (DDL)

DDL statements are mostly used to build and modify the structure of database tables and other objects in a database.

When executing these DDL statements it takes effect immediately.

DDL statements include, create, alter, drop, truncate, comment and rename statements. (Jewett, 2006)

During this project DDL statements were used to create and alter tables as well as creating the database itself.

The following shows the query used to create the database:

```
DROP DATABASE IF EXISTS `beauty`;
CREATE DATABASE `beauty`;
```

The following shows the queries used to create each table of the database:

Category Table:

```
CREATE TABLE `category` (
  `id_category` int(11) NOT NULL AUTO_INCREMENT,
  `categoryName` varchar(50) NOT NULL,
  PRIMARY KEY (`id_category`)
) ENGINE=InnoDB AUTO_INCREMENT=10 DEFAULT CHARSET=utf8;
```

Itembrand Table:

```
CREATE TABLE `itembrand` (
  `id_itembrand` int(11) NOT NULL AUTO_INCREMENT,
  `itembrandName` varchar(50) NOT NULL,
  PRIMARY KEY (`id_itembrand`)
) ENGINE=InnoDB AUTO_INCREMENT=4 DEFAULT CHARSET=utf8;
```

Item Table:

```
CREATE TABLE `item` (
  `id_item` int(11) NOT NULL AUTO_INCREMENT,
  `itemName` varchar(50) NOT NULL,
  `itemDescription` varchar(45) DEFAULT NULL,
  `itemPrice` decimal(10,2) NOT NULL,
  `id_category` int(11) NOT NULL,
  `id_itembrand` int(11) NOT NULL,
  `itemImage` longblob,
  `activated` tinyint(1) NOT NULL,
  PRIMARY KEY (`id_item`),
  KEY `item_fk_2_idx` (`id_itembrand`),
  KEY `item_fk_1_idx` (`id_category`),
  CONSTRAINT `item_fk_1` FOREIGN KEY (`id_category`) REFERENCES `category` (`id_category`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `item_fk_2` FOREIGN KEY (`id_itembrand`) REFERENCES `itembrand` (`id_itembrand`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=46 DEFAULT CHARSET=utf8;
```

Invoiceitem Table:

```
CREATE TABLE `invoiceitem` (
  `id_invoiceitem` int(11) NOT NULL AUTO_INCREMENT,
  `id_order` int(11) NOT NULL,
  `id_item` int(11) NOT NULL,
  `quantity` int(11) NOT NULL,
  `price` decimal(10,2) NOT NULL,
  `totalPrice` decimal(10,2) NOT NULL,
  PRIMARY KEY (`id_invoiceitem`),
  KEY `invoiceitem_fk_1_idx` (`id_order`),
  KEY `invoiceitem_fk_2_idx` (`id_item`),
  CONSTRAINT `invoiceitem_fk_1` FOREIGN KEY (`id_order`) REFERENCES `order` (`id_order`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `invoiceitem_fk_2` FOREIGN KEY (`id_item`) REFERENCES `item` (`id_item`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=11 DEFAULT CHARSET=utf8;
```

Logintimestamp Table:

```
CREATE TABLE `logintimestamp` (
  `id_logintimestamp` int(11) NOT NULL AUTO_INCREMENT,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
  `id_user` int(11) NOT NULL,
  PRIMARY KEY (`id_logintimestamp`)
) ENGINE=InnoDB AUTO_INCREMENT=150 DEFAULT CHARSET=utf8;
```

Order Table:

```
| CREATE TABLE `order` (
  `id_order` int(11) NOT NULL AUTO_INCREMENT,
  `id_user` int(11) NOT NULL,
  `statusCompleted` tinyint(1) NOT NULL,
  `orderDate` datetime NOT NULL,
  `statusCollected` tinyint(1) NOT NULL,
  `totalPrice` decimal(10,2) NOT NULL,
  `paymentCompleted` tinyint(1) NOT NULL,
  PRIMARY KEY (`id_order`),
  KEY `id_user` (`id_user`),
  CONSTRAINT `order_ibfk_1` FOREIGN KEY (`id_user`) REFERENCES `user` (`id_user`)
) ENGINE=InnoDB AUTO_INCREMENT=13 DEFAULT CHARSET=utf8;
```

Service Table:

```
CREATE TABLE `service` (
  `id_service` int(11) NOT NULL AUTO_INCREMENT,
  `serviceName` varchar(45) NOT NULL,
  `serviceDescription` varchar(45) DEFAULT NULL,
  `servicePrice` decimal(10,2) NOT NULL,
  `id_category` int(11) NOT NULL,
  PRIMARY KEY (`id_service`),
  KEY `service_fk_1_idx` (`id_category`),
  CONSTRAINT `service_fk_1` FOREIGN KEY (`id_category`) REFERENCES `category` (`id_category`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=48 DEFAULT CHARSET=utf8;
```

Shoppingcartitem Table:

```
CREATE TABLE `shoppingcartitem` (
  `id_shoppingcartitem` int(11) NOT NULL AUTO_INCREMENT,
  `id_item` int(11) NOT NULL,
  `id_user` int(11) NOT NULL,
  `quantity` int(11) NOT NULL,
  `totalPrice` decimal(10,2) NOT NULL,
  PRIMARY KEY (`id_shoppingcartitem`),
  KEY `shoppingcartitem_fk_1_idx` (`id_item`),
  KEY `shoppingcartitem_fk_2_idx` (`id_user`),
  CONSTRAINT `shoppingcartitem_fk_1` FOREIGN KEY (`id_item`) REFERENCES `item` (`id_item`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `shoppingcartitem_fk_2` FOREIGN KEY (`id_user`) REFERENCES `user` (`id_user`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=2 DEFAULT CHARSET=utf8;
```

User Table:

```
|CREATE TABLE `user` (
  `id_user` int(11) NOT NULL AUTO_INCREMENT,
  `userName` varchar(50) NOT NULL,
  `userSurname` varchar(50) NOT NULL,
  `userContact` varchar(20) NOT NULL,
  `userEmail` varchar(50) NOT NULL,
  `userPassword` varchar(50) NOT NULL,
  `activated` tinyint(1) NOT NULL,
  `admin` tinyint(1) NOT NULL,
  PRIMARY KEY (`id_user`),
  UNIQUE KEY `userEmail_UNIQUE` (`userEmail`)
) ENGINE=InnoDB AUTO_INCREMENT=7 DEFAULT CHARSET=utf8;
```

(Magutsa . 2017)

- Data Manipulation Language (DML)

DML statements are mostly used to work with the data in the database tables.

Statements that are considered DML statements includes SELECT, INSERT, UPDATE and DELETE. ((Jewett, 2006))

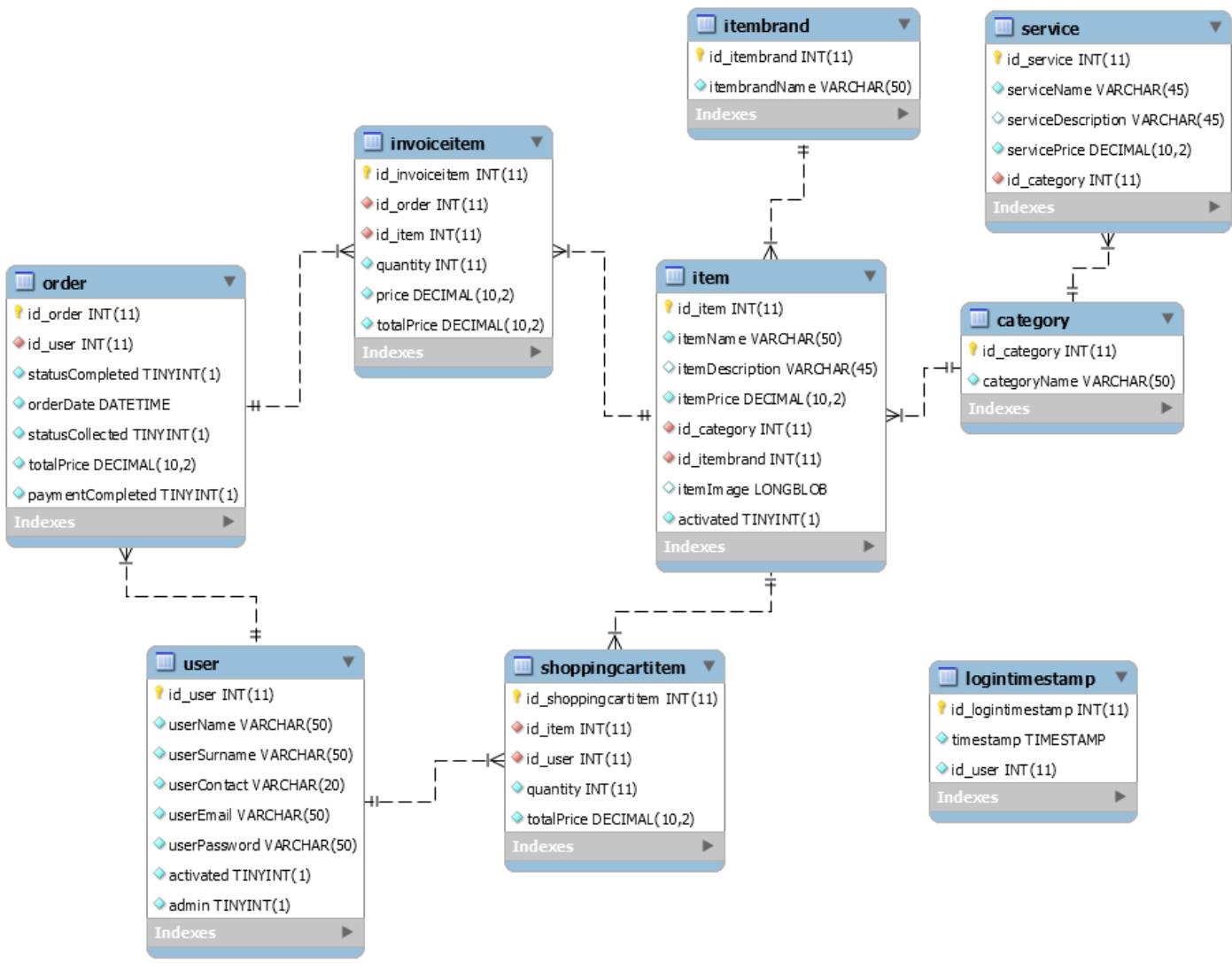
In this project, functions were created in the application side in a PHP class using insert, update and delete DML statements in order for the user and application using the database to efficiently insert data, update data and delete data in each table. (Techopedia. 2017)

Select statements however, was not programmed in the PHP class, but were used in views as well as from the application side.

In the screenshot below, it shows how the application used the select DML statement:

```
$sqlSelect = "SELECT * FROM user WHERE userEmail= '" . $email . "' && userPassword= '" . $password . "'";
$res = mysqli_query($dbOne->myconn, $sqlSelect);
```

After Developing the database, the following diagram demonstrates the final ERD: This diagram is also shown in the Designing section of this document.



3.2 Website

The system that was developed in this project was developed with a database first approach.

The database structure was planned and then developed accordingly.

Once the database was developed and in place, the application was developed.

The application is an E-commerce Website which allows L'Elegance Beauty to sell their beauty products online as well as advertise the treatments they offer all while having full control over the content of the system by the use of an admin side to the website.

The website was developed using HTML, CSS, JavaScript and PHP.

The IDE (integrated development environment) used to develop the website is known as PHPStorm.

GitHub was used to make integration and collaboration of the website easier by pushing and pulling code to the GitHub server during the development process. Heroku is being used to make it possible to let the website go live and host the website. (Heroku. 2017)

The website integrates with PayPal to ensure secure transactions.

(PayPal Developer. 2017)

In order for the website to integrate with the MySQL database as well as be able to run PHP functionality, a few preparations had to be made.

In order to run the website locally:

- MySQL server had to be installed and running
- Apache server had to be installed and running
- The above mentioned was handled by installing WAMP and setting up and running the required servers through it. (Drager. 2008)

In order for the website to run live the following preparations were necessary:

- MySQL had to be setup with connection strings on Heroku
- PHP server had to be selected on Heroku and setup
- GitHub integration with Heroku had to be setup (Ward, 2015)

On the server side of the website the following preparation was done to be able to have clear and structured way to communicate with either the local database or the live database:

- A PHP class was created that served the purpose of connecting and disconnecting to the database as well as calling and executing queries to the database.

The class that was created is known as DBConnect.php

The following screenshot shows the structure of the DBConnect.php class:

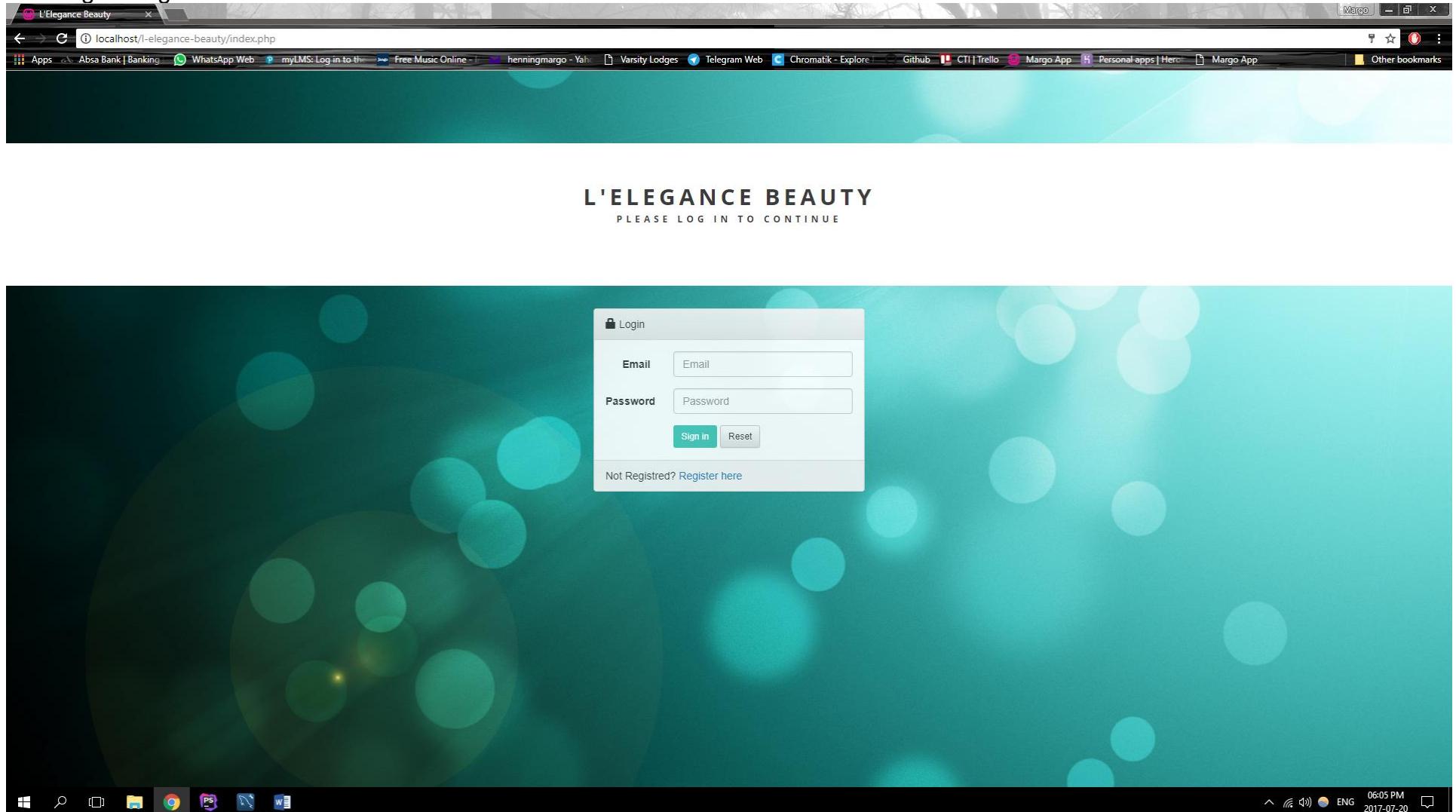
```
1  <?php
2  /** Created by PhpStorm. ... */
3
4  class DBConnect //create a class for make connection
5  {
6      var $host="localhost";
7      var $username="root"; // specify the sever details for mysql
8      var $password="Sharktale";
9      var $database="beauty";
10     var $myconn;
11
12     function connectToDatabase() // create a function for connect database{...}
13
14
15
16     function closeConnection() // close the connection{...}
17
18
19
20     //insert
21     function insertUser(user $user){...}
22
23     function insertShoppingCartItem(shoppingcartitem $sci){...}
24
25     function insertItem(item $item){...}
26
27     function insertItemBrand(itembrand $itembrand){...}
28
29     function insertCategory(category $category){...}
30
31     function insertInvoiceItem(invoiceitem $ii){...}
32
33     function insertOrder(order $order){...}
34
35     function insertService(service $service){...}
36
37     function insertLogintimestamp(logintimestamp $lits){...}
38
39
40
41     //update
42     function updateUser(user $user){...}
43
44     function updateShoppingCartItem(shoppingcartitem $sci){...}
45
46     function updateItem(item $item){...}
47
48     function updateItemBrand(itembrand $itembrand){...}
49
50     function updateCategory(category $category){...}
51
52     function updateInvoiceItem(invoiceitem $ii){...}
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
```

```
273      function updateOrder(order $order) {...}
291      ►+    function updateService(service $service) {...}
307
308
309
310      //delete
311      ►+    function deleteUser($user) {...}
323
324      ►+    function deleteShoppingCartItem($scsi) {...}
335
336      ►+    function deleteItem($item) {...}
347
348      ►+    function deleteItemBrand($itembrand) {...}
359
360      ►+    function deleteCategory($category) {...}
371
372      ►+    function deleteInvoiceItem($ii) {...}
383
384      ►+    function deleteOrder($order) {...}
395
396      ►+    function deleteService($service) {...}
407
408      □}
409      ?>
```

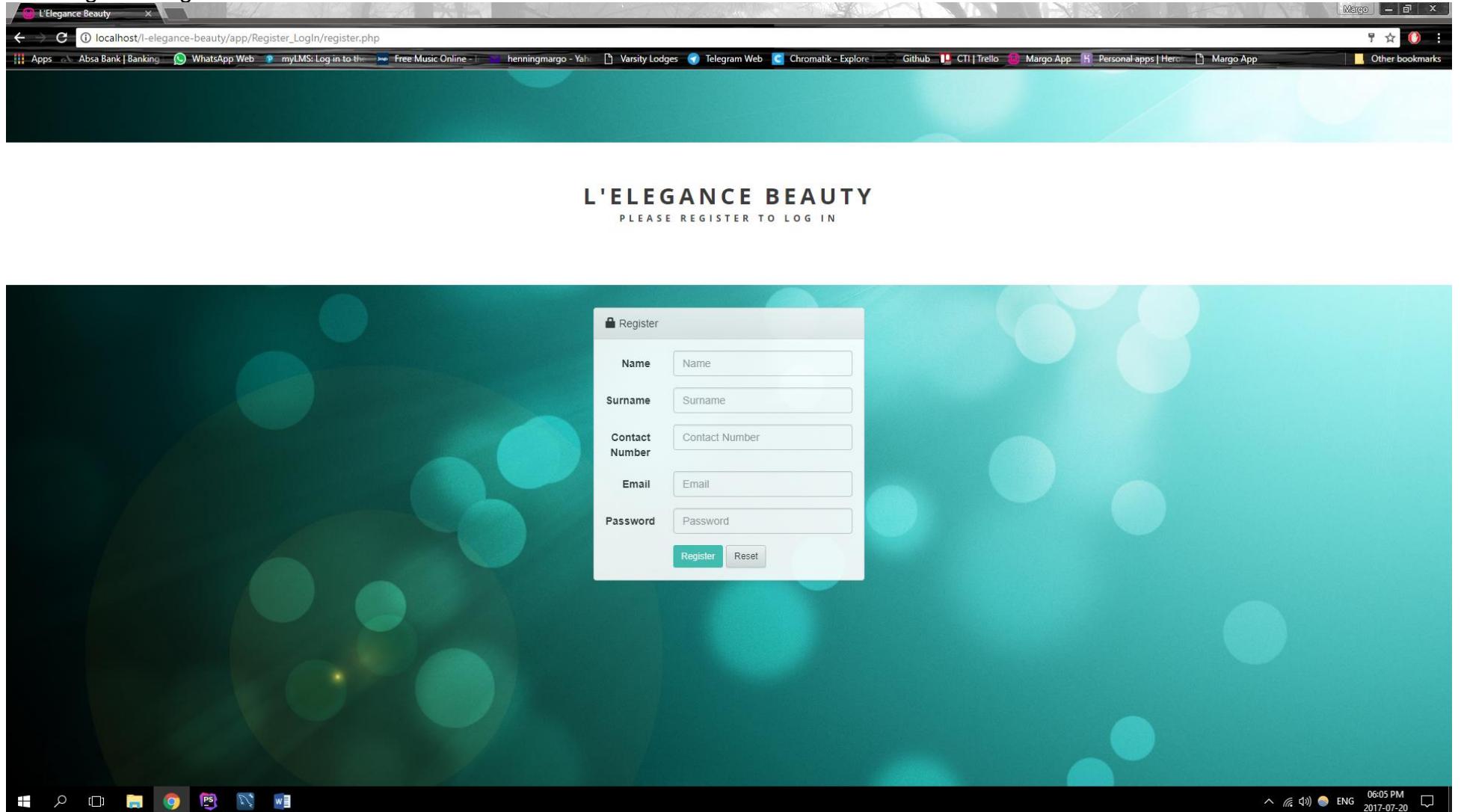
(Php.net. 2017)

The following is screenshots of the website's interface:

The Log In Page:



The Register Page:



The User Side:
Home Page:



A screenshot of a web browser showing the L'Elegance Beauty homepage. The title bar says 'L'Elegance Beauty'. The address bar shows 'localhost/l-elegance-beauty/app/UserPages/Home.php'. The page content includes a header with the logo 'L'Elegance Beauty' and navigation links for 'AboutUs', 'Contact', 'Products', 'Treatments', 'Terms and Conditions', 'myAccount', 'myOrders', 'myCart', and 'LogOut'. Below the header is a large banner with the text 'WELCOME TO L'ELEGANCE BEAUTY'. There are three circular icons: one showing a massage, one showing skincare products, and one showing a woman's face. Below each icon is a section title and a brief description.

WELCOME TO L'ELEGANCE BEAUTY



Search for Products

Find the perfect product for your skin!



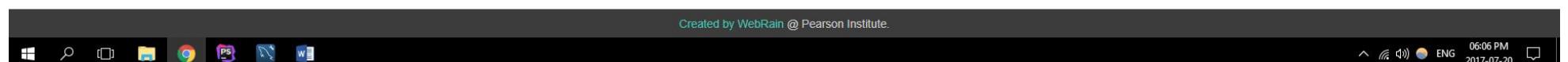
Order Products Online

You are now able to order your favorite products online!



View all Treatments

You can view the list of treatments available!



A screenshot of the Windows taskbar at the bottom of the screen. It shows various pinned icons including File Explorer, Google Chrome, and Microsoft Word. The system tray on the right shows the date and time as '2017-07-20 06:06 PM' and the language as 'ENG'. The status bar above the taskbar displays the text 'Created by WebRain @ Pearson Institute.'

About Us Page:

L'Elegance Beauty is a local business that is in the industry of selling beauty products as well as beauty services. L'Elegance Beauty opened their doors for the first time in 2003 by the owner and beauty therapist, Lisle Weiermans. Lisle still runs her business herself successfully till this day. Lisle did a three-year qualification and passed her international diploma. After getting her qualifications, she gained a few years of experience and then decided to start her business. She describes herself as having a passion for being practical and applying her skills in a practical manner. Lisle has been the only therapist for her business for the last 14 years and her clients are very special to her and she appreciates their loyalty. After talking to one of her clients it is clear that Lisle's passion for her business and clients goes far beyond just giving them a beauty treatment, she makes each client feel special and refreshed after their treatment.

ABOUT US

L'Elegance Beauty is a local business that is in the industry of selling beauty products as well as beauty services. L'Elegance Beauty opened their doors for the first time in 2003 by the owner and beauty therapist, Lisle Weiermans.

Lisle still runs her business herself successfully till this day.

Lisle did a three-year qualification and passed her international diploma.

After getting her qualifications, she gained a few years of experience and then decided to start her business.

She describes herself as having a passion for being practical and applying her skills in a practical manner.

Lisle has been the only therapist for her business for the last 14 years and her clients are very special to her and she appreciates their loyalty.

After talking to one of her clients it is clear that Lisle's passion for her business and clients goes far beyond just giving them a beauty treatment, she makes each client feel special and refreshed after their treatment.

Created by WebRain @ Pearson Institute.

Windows 10 taskbar icons including Start, Search, Task View, File Explorer, Google Chrome, Photoshop, Microsoft Edge, Word, and Excel. System tray icons for battery, signal, volume, and date/time (06:06 PM, 2017-07-20).

Contact Us Page:

L'Elegance Beauty

AboutUs Contact Products Treatments Terms and Conditions

myAccount myOrders myCart LogOut

CONTACT US

Name	Surname	Email	Telephone Number	Position
Lisle	Weiermans	lisleweiermans@gmail.com	082-805-5501	Beauty Therapist and Owner
Margo	Henning	hmargo.mh@gmail.com	076-909-2776	Website Developer and Tech Support

Created by WebRain @ Pearson Institute.

06:06 PM 2017-07-20

Products Page:

The screenshot shows a web browser displaying the 'Products' page of the L'Elegance Beauty website. The page features a header with navigation links for 'L'Elegance Beauty', 'AboutUs', 'Contact', 'Products', 'Treatments', 'Terms and Conditions', and user account options ('myAccount', 'myOrders', 'myCart', 'LogOut'). Below the header is a section titled 'PRODUCTS' with a teal horizontal line. The main content displays six product items arranged in two rows of three. Each item includes a thumbnail image, a color swatch palette, and a brief description.

Top Row Products:

- Long Lasting Foundation**
Colour 11
R 525.00
Brand: RVB SkinLab
[View Product](#)
- Long Lasting Foundation**
Colour 12
R 525.00
Brand: RVB SkinLab
[View Product](#)
- Long Lasting Foundation**
Colour 13
R 525.00
Brand: RVB SkinLab
[View Product](#)

Bottom Row Products:

- Long Lasting Foundation**
Colour 11
R 525.00
Brand: RVB SkinLab
[View Product](#)
- Long Lasting Foundation**
Colour 12
R 525.00
Brand: RVB SkinLab
[View Product](#)
- Lifting Effect Foundation**
Created by WebRain @ Pearson Institute.

The browser's address bar shows the URL <https://l-elegance-beauty.herokuapp.com/app/UserPages/Products.php>. The taskbar at the bottom of the screen shows various application icons, and the system tray indicates the date and time as 06:09 PM on 2017-07-20.

View Product Page:

L'Elegance Beauty-myAc... L'Elegance Beauty-Prod... Margo

Secure | https://l-elegance-beauty.herokuapp.com/app/UserPages/Product.php?id=3

Apps Absa Bank | Banking WhatsApp Web myLMS: Log in to th... Free Music Online henningmarg... - Yahoo Varsity Lodges Telegram Web Chromatic - Explore Github CTI | Trello Margo App Personal apps | Hero Margo App Other bookmarks

L'Elegance Beauty AboutUs Contact Products Treatments Terms and Conditions myAccount myOrders myCart LogOut

PRODUCTS

Product ID:	3
Product Name:	Long Lasting Foundation
Product Description:	Colour 11
Product Price:	R 525.00
Product Brand:	RVB SkinLab
Product Category:	Make-Up
Product Image:	 <small>1 2 3 4 5</small>
<input type="button" value="1"/>	<input type="button" value="Add to Cart"/>



Treatments Page:

The screenshot shows a web browser window with the title "L'Elegance Beauty-Treatments" at the top. The address bar shows "localhost/l-elegance-beauty/app/UserPages/Services.php". The page content is titled "TREATMENTS" in bold capital letters. Below the title is a table with four columns: "Treatment Name", "Treatment Description", "Treatment Price (ZAR)", and "Treatment Category". The table lists 18 different treatments, each with its description, price, and category assigned. At the bottom of the page, there is a footer bar with icons for various Windows applications like File Explorer, Google Chrome, and Microsoft Word, along with system status icons for battery, signal, and volume.

Treatment Name	Treatment Description	Treatment Price (ZAR)	Treatment Category
Teenage Facial	RVB skin care products, Brow and Lip wax, Bro	300.00	Facial
Holistic Purifying Facial	RVB skin care products, Brow and Lip wax, Bro	440.00	Facial
Holistic Hydrating Facial	RVB skin care products, Brow and Lip wax, Bro	440.00	Facial
Holistic Calming Facial	RVB skin care products, Brow and Lip wax, Bro	440.00	Facial
DTP Facial	RVB skin care products, Brow and Lip wax, Bro	500.00	Facial
Eyelashes Tinting		75.00	Tinting
Eyebrows Tinting and Shaping		55.00	Tinting
Lashes & Brows Tinting		120.00	Tinting
Full leg and Bikini Wax		275.00	Waxing
Full leg wax		220.00	Waxing
Upper leg and Bikini wax		190.00	Waxing
Half Leg wax		165.00	Waxing
Arm wax		140.00	Waxing
Bikini wax		110.00	Waxing
Brazilian wax		180.00	Waxing
Full Bikini wax		250.00	Waxing
Face wax		140.00	Waxing
Underarm wax		75.00	Waxing

Terms and Conditions Page:

L'Elegance Beauty-Term... x Margo

localhost/l-elegance-beauty/app/UserPages/TermsConditions.php

Apps Absa Bank | Banking WhatsApp Web myLMS: Log in to the Free Music Online henningmargo - Yah... Varsity Lodges Telegram Web Chromatic - Explore Github CTI | Trello Margo App Personal apps | Her... Margo App Margo App Other bookmarks

L'Elegance Beauty AboutUs Contact Products Treatments Terms and Conditions myAccount myOrders myCart LogOut

TERMS AND CONDITIONS

Last updated: July 11, 2017

Please read these Terms and Conditions ("Terms", "Terms and Conditions") carefully before using the <https://l-elegance-beauty.herokuapp.com/> website (the "Service") operated by L'Elegance Beauty ("us", "we", or "our").

Your access to and use of the Service is conditioned on your acceptance of and compliance with these Terms. These Terms apply to all visitors, users and others who access or use the Service.

By accessing or using the Service you agree to be bound by these Terms. If you disagree with any part of the terms then you may not access the Service. This Terms & Conditions agreement is licensed to L'Elegance Beauty.

Accounts

When you create an account with us, you must provide us information that is accurate, complete, and current at all times. Failure to do so constitutes a breach of the Terms, which may result in immediate termination of your account on our Service.

You are responsible for safeguarding the password that you use to access the Service and for any activities or actions under your password, whether your password is with our Service or a third-party service.

You agree not to disclose your password to any third party. You must notify us immediately upon becoming aware of any breach of security or unauthorized use of your account.

Links To Other Web Sites

Our Service may contain links to third-party web sites or services that are not owned or controlled by L'Elegance Beauty.

L'Elegance Beauty has no control over, and assumes no responsibility for, the content, privacy policies, or practices of any third party web sites or services. You further acknowledge and agree that L'Elegance Beauty shall not be responsible or liable, directly or indirectly, for any damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods or services available on or through any such web sites or services.

We strongly advise you to read the terms and conditions and privacy policies of any third-party web sites or services that you visit.

Termination

We may terminate or suspend access to our Service immediately, without prior notice or liability, for any reason whatsoever, including without limitation if you breach the Terms.

All provisions of the Terms which by their nature should survive termination shall survive termination, including, without limitation, ownership provisions, warranty disclaimers, indemnity and limitations of liability.

Created by WebRain @ Pearson Institute. 06:10 PM 2017-07-20

My Account Page:

L'Elegance Beauty-myAccount

localhost/l-elegance-beauty/app/UserPages/Account.php

L'Elegance Beauty AboutUs Contact Products Treatments Terms and Conditions myAccount myOrders myCart LogOut

MY-ACCOUNT

You are logged in as the following user

Name:	user
Surname:	user
Contact Number:	0710000000
Email:	user@g.com

Update Account

Created by WebRain @ Pearson Institute.

^ ⌂ ENG 06:10 PM 2017-07-20

My Account Update Page:

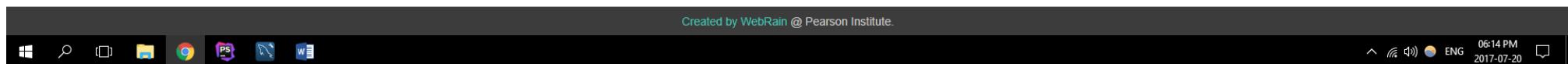
The screenshot shows a web browser window with the title bar "L'Elegance Beauty-myAc..." and the address bar "localhost/l-elegance-beauty/app/UserPages/UpdateAccount.php". The page content is titled "MY-ACCOUNT" and contains a form for updating account details. The form fields are: Name (user), Surname (user), Contact Number (0710000000), Email (user@g.com), and Password (****). A green "Update" button is at the bottom. The browser's navigation bar shows various bookmarks and tabs.

MY-ACCOUNT

A form for updating account details. It includes fields for Name, Surname, Contact Number, Email, and Password, each with a corresponding input field. Below the fields is a green "Update" button.

Name	user
Surname	user
Contact Number	0710000000
Email	user@g.com
Password	****

Update



My Orders Page:

L'Elegance Beauty - myOrders

localhost/l-elegance-beauty/app/UserPages/Orders.php

Apps Absa Bank | Banking WhatsApp Web myLMS: Log in to th... Free Music Online henningmarg... Varsity Lodges Telegram Web Chromatik - Explore Github CTI | Trello Margo App Personal apps | Herc... Margo App Other bookmarks

L'Elegance Beauty AboutUs Contact Products Treatments Terms and Conditions myAccount myOrders myCart LogOut

MY-ORDERS

OrderID	Order Completion Status	Order Collection Status	Order Date	Total Price per Order	Product Name	Product Description	Brand	Category	Quantity	Price	Total Price per Product
7	No	No	2017-07-19 18:04:48	R 1050.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	2	R 525.00	R 1050.00
8	No	No	2017-07-19 18:12:27	R 1050.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	2	R 525.00	R 1050.00
9	No	No	2017-07-19 18:15:23	R 3150.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	3	R 525.00	R 1575.00
					Long Lasting Foundation	Colour 13	RVB SkinLab	Make-Up	3	R 525.00	R 1575.00
10	No	No	2017-07-19 18:20:05	R 2525.00	Illuminating Foundation	Colour 33	RVB SkinLab	Make-Up	2	R 475.00	R 950.00
					Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	3	R 525.00	R 1575.00
12	No	No	2017-07-19 19:12:10	R 1050.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	2	R 525.00	R 1050.00

Created by WebRain @ Pearson Institute.



^ ⌂ ENG 06:11 PM 2017-07-20

My Cart Page:

L'Elegance Beauty

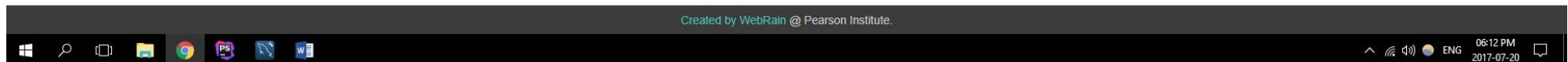
AboutUs Contact Products Treatments Terms and Conditions myAccount myOrders myCart LogOut

localhost/i-elegance-beauty/app/UserPages/CheckOut.php

MY-CART

Product ID	Product Name	Product Description	Product Brand	Product Category	Product Price	Quantity	Total Price	Remove Product from Cart	Cart Total
3	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	R 525.00	3	R 1575.00	<button>Remove from Cart</button>	R 1575

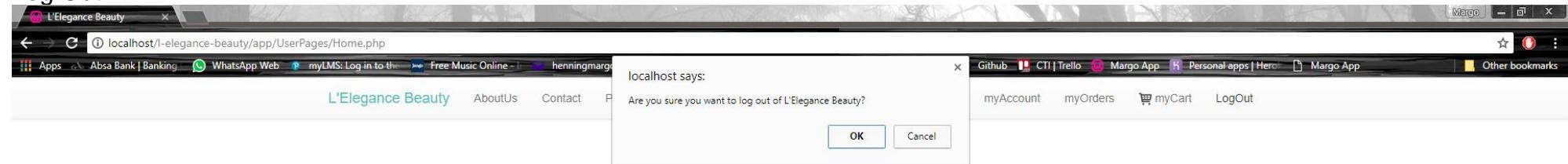
Please note that the ZAR price displayed will be converted to USD using the current exchange rate when checking out.



The PayPal payment page you go to after clicking on the Check Out Button on the My Cart Page:

A screenshot of a web browser displaying a PayPal checkout page. The browser's address bar shows the URL <https://www.sandbox.paypal.com/checkoutnow?lo>. The main content area is titled "MY-CART". On the left, there is a table showing a single item: Product ID 3, Product Name Long Lasting Foundation, and Product Description Colour 11. A note below the table states: "Please note that the ZAR price displayed will be converted to USD at the current exchange rate." On the right, there is a summary table with columns for Total Price, Remove Product from Cart, and Cart Total. The total price is listed as R 1575.00 and R 1575. Below the summary table is a "Remove from Cart" button. The central part of the page is the PayPal login form, which includes fields for Email and Password, a "Stay logged in for faster checkout" checkbox, and a "Log In" button. There is also a link for "Having trouble logging in?" and an "OR" option to "Pay with Debit or Credit Card". At the bottom of the PayPal form, there are links for "Cancel and return to test facilitator's Test Store", "PayPal", "Feedback", and "© 1999 - 2017". The background of the browser window shows the L'Elegance Beauty website with a navigation menu including "AboutUs", "Contact", "Products", "Treatments", and "Terms and Conditions". The status bar at the bottom of the screen shows standard Windows icons and the date/time: 06:13 PM 2017-07-20.

Log Out:



WELCOME TO L'ELEGANCE BEAUTY



Search for Products

Find the perfect product for your skin!



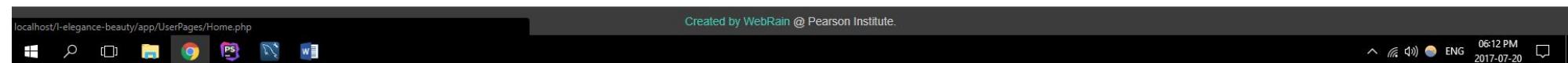
Order Products Online

You are now able to order your favorite products online!



View all Treatments

You can view the list of treatments available!



The Admin Side:
Home Page:



A screenshot of a web browser window titled "L'Elegance Beauty". The address bar shows the URL "localhost/l-elegance-beauty/app/AdminPages/Home.php". The browser interface includes a toolbar with various icons and a bookmarks bar at the top. Below the toolbar, there is a navigation menu with links like "Products", "Treatments", "Orders", "Users", "Login Record", "myAccount", and "LogOut". The main content area displays the "WELCOME TO L'ELEGANCE BEAUTY ADMIN" heading and three circular icons representing different functions: "Update Products" (woman getting a facial), "View Orders Online" (cosmetic products), and "Update Treatments" (woman applying cream).

WELCOME TO L'ELEGANCE BEAUTY ADMIN



Update Products

Here you can keep your current products updated!



View Orders Online

Here you can view all users and the orders they made!



Update Treatments

Here you can keep your current treatments updated!

Created by WebRain @ Pearson Institute.



^ ⌂ ⌂ ENG 09:03 PM
2017-07-20

Products Page:

The screenshot shows a web browser window for 'L'Elegance Beauty' on the 'ProductsAdmin.php' page. The page title is 'PRODUCTS'. At the top, there are three buttons: 'Add Product', 'Add Category', and 'Add Brand'. Below is a table with 14 rows of product data. Each row includes columns for Product ID, Product Name, Product Description, Product Price (ZAR), Product Brand, Product Category, Product Activated, and two action buttons: 'Update Product' (green) and 'Remove Product' (grey). The products listed are various foundations from RVB SkinLab.

Product ID	Product Name	Product Description	Product Price (ZAR)	Product Brand	Product Category	Product Activated	Update Product	Remove Product
3	Long Lasting Foundation	Colour 11	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
4	Long Lasting Foundation	Colour 12	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
5	Long Lasting Foundation	Colour 13	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
6	Long Lasting Foundation	Colour 14	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
7	Long Lasting Foundation	Colour 15	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
8	Lifting Effect Foundation	Colour 21	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
9	Lifting Effect Foundation	Colour 22	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
10	Lifting Effect Foundation	Colour 23	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
11	Lifting Effect Foundation	Colour 24	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
12	Illuminating Foundation	Colour 31	475.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
13	Illuminating Foundation	Colour 32	475.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
14	Illuminating Foundation	Colour 33	475.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>

Created by WebRain @ Pearson Institute.

Windows taskbar icons: File Explorer, Google Chrome, Photoshop, Microsoft Word, Microsoft Paint.

System tray: Battery, Wi-Fi, Volume, ENG, 04:24 PM, 2017-07-21.

Update Product Page:

L'Elegance Beauty - Prod... Margo

localhost/i-elegance-beauty/app/AdminPages/UpdateProduct.php?id=4

LogOut

L'Elegance Beauty Products Treatments Orders Users Login Record myAccount

PRODUCTS

Product ID: 4

Product Name: Long Lasting Foundation

Product Description: Colour 12

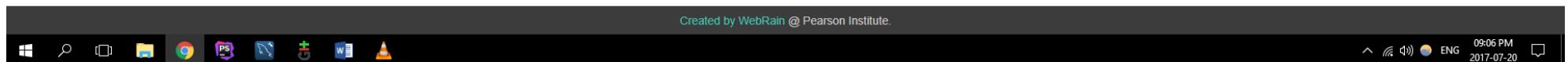
Category: Make-Up

Brand: RVB SkinLab

Product Price: 525.00

Activated: True

Update



Remove Product:

The screenshot shows a web browser window for 'L'Elegance Beauty' with a modal dialog box asking if the user wants to remove a product. The dialog has 'localhost says:' at the top, followed by the question 'Are you sure you want to remove this product?'. There are 'OK' and 'Cancel' buttons at the bottom. The background page displays a 'PRODUCTS' table with 14 rows of foundation data.

Product ID	Product Name	Product Description	Product Price (ZAR)	Product Brand	Product Category	Product Activated	Update Product	Remove Product
3	Long Lasting Foundation	Colour 11	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
4	Long Lasting Foundation	Colour 12	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
5	Long Lasting Foundation	Colour 13	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
6	Long Lasting Foundation	Colour 14	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
7	Long Lasting Foundation	Colour 15	525.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
8	Lifting Effect Foundation	Colour 21	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
9	Lifting Effect Foundation	Colour 22	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
10	Lifting Effect Foundation	Colour 23	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
11	Lifting Effect Foundation	Colour 24	535.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
12	Illuminating Foundation	Colour 31	475.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
13	Illuminating Foundation	Colour 32	475.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>
14	Illuminating Foundation	Colour 33	475.00	RVB SkinLab	Make-Up	1	<button>Update Product</button>	<button>Remove Product</button>

Created by WebRain @ Pearson Institute.

Add Product Page:

L'Elegance Beauty - Prod

localhost/l-elegance-beauty/app/AdminPages/AddProduct.php

Margo

LogOut

L'Elegance Beauty Products Treatments Orders Users Login Record myAccount

PRODUCTS

Product Name:

Product Description:

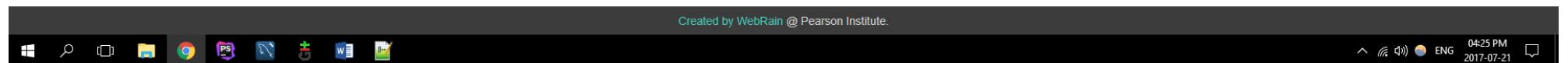
Category: Facial

Brand: RVB SkinLab

Product Price:

Activated: True

Add Product



Add Brand Page:

The screenshot shows a web browser window with the title 'L'Elegance Beauty-Brand'. The URL in the address bar is 'localhost/i-elegance-beauty/app/AdminPages/AddBrand.php'. The page header includes the 'L'Elegance Beauty' logo and navigation links for 'Products', 'Treatments', 'Orders', 'Users', 'Login Record', 'myAccount', and 'LogOut'. Below the header, the word 'BRAND' is centered in large capital letters. A form box contains a 'Brand Name' input field and a green 'Add Brand' button. The browser's toolbar at the top shows various bookmarks and the date '2017-07-21'.

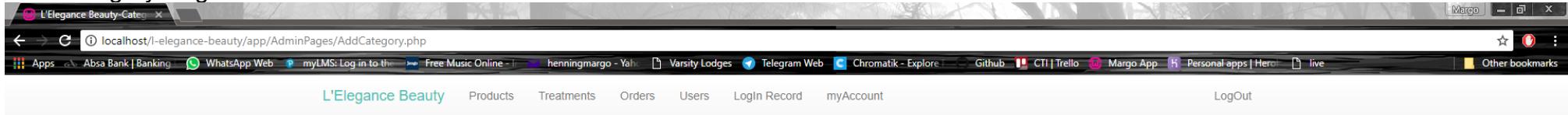
BRAND

A rectangular form box with a light gray background. Inside, there is a label 'Brand Name' next to a white input field with a thin gray border. Below the input field is a green rectangular button with the white text 'Add Brand'.

Created by WebRain @ Pearson Institute.

Windows 10 taskbar showing icons for various applications and system status.

Add Category Page:



CATEGORY

Category Name	<input type="text" value="Category Name"/>
Add Category	

Created by WebRain @ Pearson Institute

Treatments Page:

The screenshot shows a web browser window titled "L'Elegance Beauty-Treat" with the URL "localhost/i-elegance-beauty/app/AdminPages/ServicesAdmin.php". The page has a header with links for "L'Elegance Beauty", "Products", "Treatments", "Orders", "Users", "Login Record", "myAccount", and "LogOut". Below the header is a main section titled "TREATMENTS" with a table listing various treatments. The table columns are: Treatment Name, Treatment Description, Treatment Price (ZAR), Treatment Category, Update Treatment, and Remove Treatment. Each row in the table corresponds to a specific treatment with its details and action buttons.

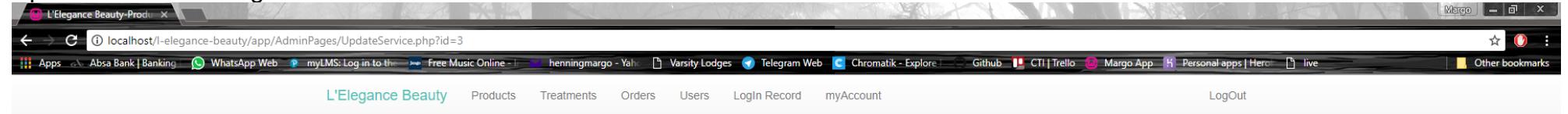
Treatment Name	Treatment Description	Treatment Price (ZAR)	Treatment Category	Update Treatment	Remove Treatment
Teenage Facial	RVB skin care products, Brow and Lip wax, Bro	300.00	Facial	<button>Update Treatment</button>	<button>Remove Treatment</button>
Holistic Purifying Facial	RVB skin care products, Brow and Lip wax, Bro	440.00	Facial	<button>Update Treatment</button>	<button>Remove Treatment</button>
Holistic Hydrating Facial	RVB skin care products, Brow and Lip wax, Bro	440.00	Facial	<button>Update Treatment</button>	<button>Remove Treatment</button>
Holistic Calming Facial	RVB skin care products, Brow and Lip wax, Bro	440.00	Facial	<button>Update Treatment</button>	<button>Remove Treatment</button>
DTP Facial	RVB skin care products, Brow and Lip wax, Bro	500.00	Facial	<button>Update Treatment</button>	<button>Remove Treatment</button>
Eylashes Tinting		75.00	Tinting	<button>Update Treatment</button>	<button>Remove Treatment</button>
Eyebrows Tinting and Shaping		55.00	Tinting	<button>Update Treatment</button>	<button>Remove Treatment</button>
Lashes & Brows Tinting		120.00	Tinting	<button>Update Treatment</button>	<button>Remove Treatment</button>
Full leg and Bikini Wax		275.00	Waxing	<button>Update Treatment</button>	<button>Remove Treatment</button>
Full leg wax		220.00	Waxing	<button>Update Treatment</button>	<button>Remove Treatment</button>
Upper leg and Bikini wax		190.00	Waxing	<button>Update Treatment</button>	<button>Remove Treatment</button>
Half Leg wax		165.00	Waxing	<button>Update Treatment</button>	<button>Remove Treatment</button>
Arm wax		140.00	Waxing	<button>Update Treatment</button>	<button>Remove Treatment</button>

Created by WebRain @ Pearson Institute.

Windows taskbar icons: File Explorer, Google Chrome, Photoshop, Microsoft Word, Microsoft Excel.

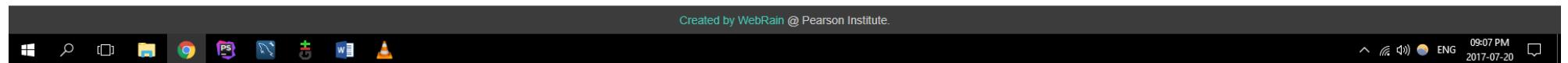
System tray: ENG 04:26 PM 2017-07-21

Update Treatment Page:

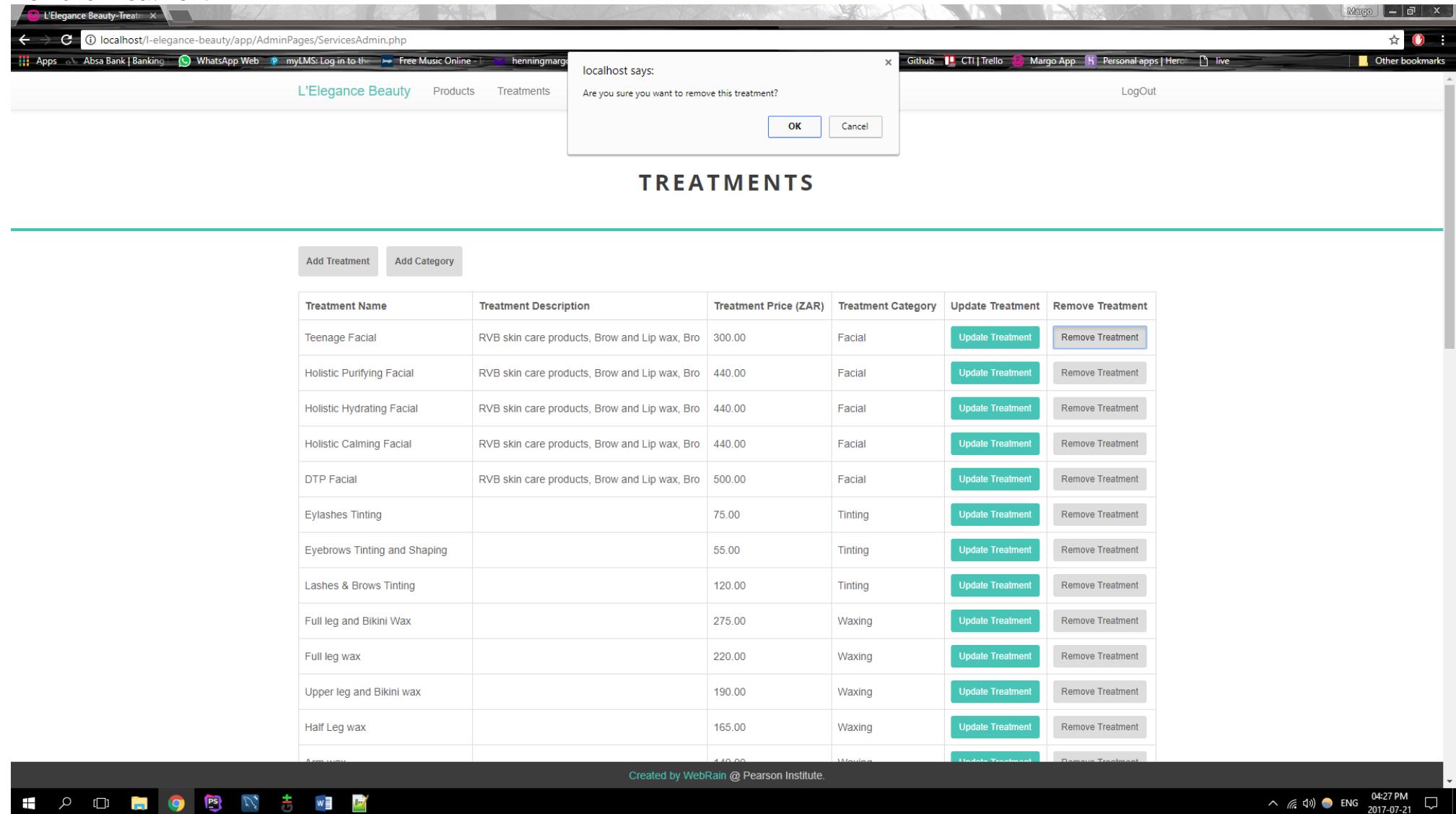


TREATMENTS

Treatment ID	<input type="text" value="3"/>
Treatment Name	<input type="text" value="Teenage Facial"/>
Treatment Description	<input type="text" value="RVB skin care products, Brow and"/>
Price	<input type="text" value="300.00"/>
Category	<input type="text" value="Facial"/>
	<input type="button" value="Update"/>



Remove Treatment:



Add Treatment:

The screenshot shows a web browser window with the title 'L'Elegance Beauty - Prod' and the URL 'localhost/i-elegance-beauty/app/AdminPages/AddTreatment.php'. The browser's address bar also displays 'Margo'. The page header includes links for 'Logout' and 'myAccount'. Below the header, there is a navigation menu with items: 'L'Elegance Beauty', 'Products', 'Treatments', 'Orders', 'Users', 'Login Record', and 'Logout'. The main content area is titled 'TREATMENTS' and contains a form for adding a new treatment. The form fields are: 'Treatment Name' (input field), 'Treatment Description' (input field), 'Category' (dropdown menu set to 'Facial'), and 'Treatment Price' (input field). A green 'Add Treatment' button is located at the bottom of the form.

Created by WebRain @ Pearson Institute.

Windows 10 taskbar showing various application icons and system status.

Orders Page:

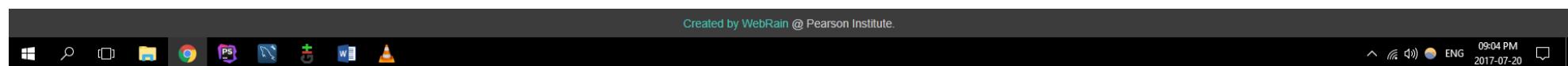
L'Elegance Beauty Orders Admin

localhost/l-elegance-beauty/app/AdminPages/OrdersAdmin.php

L'Elegance Beauty Products Treatments Orders Users Login Record myAccount LogOut

ORDERS

OrderID	Order Completion Status	Order Collection Status	Order Date	Total Price per Order	Product Name	Product Description	Brand	Category	Quantity	Price	Total Price per Product	Update Order
7	No	No	2017-07-19 18:04:48	R 1050.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	2	R 525.00	R 1050.00	<button>Update Order</button>
8	No	No	2017-07-19 18:12:27	R 1050.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	2	R 525.00	R 1050.00	<button>Update Order</button>
9	No	No	2017-07-19 18:15:23	R 3150.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	3	R 525.00	R 1575.00	<button>Update Order</button>
10	No	No	2017-07-19 18:20:05	R 2525.00	Illuminating Foundation	Colour 33	RVB SkinLab	Make-Up	2	R 475.00	R 950.00	<button>Update Order</button>
12	No	No	2017-07-19 19:12:10	R 1050.00	Long Lasting Foundation	Colour 11	RVB SkinLab	Make-Up	2	R 525.00	R 1050.00	<button>Update Order</button>



Users Page:

USERS

User ID	User Name	User Surname	User Contact Number	User Email	Activated	Admin User	Update User
5	DEV	DEV	0000000000	DEV@g.com	Yes	Yes	<button>Update User</button>
6	user	user	0710000000	user@g.com	Yes	No	<button>Update User</button>

Created by WebRain @ Pearson Institute.

^ ⌂ ⌂ ENG 09:05 PM 2017-07-20

Update user Page:

The screenshot shows a web browser window titled "L'Elegance Beauty User". The URL in the address bar is "localhost/l-elegance-beauty/app/AdminPages/UpdateUser.php?id=5". The page header includes the L'Elegance Beauty logo and navigation links for Products, Treatments, Orders, Users, Login Record, myAccount, and LogOut. The main content area is titled "USERS" and contains a form for updating a user's information. The form fields are as follows:

User ID	5
Name	DEV
Surname	DEV
Contact Number	0000000000
Email	DEV@g.com
Password	...
Admin	True
Activated	True

A green "Update" button is located at the bottom of the form.

Created by WebRain @ Pearson Institute.

04:32 PM 2017-07-23

Log In Record Page:

The screenshot shows a web browser window with the title 'L'Elegance Beauty-Treats'. The address bar displays 'localhost/l-elegance-beauty/app/AdminPages/LoginRecord.php'. The page header includes links for 'Products', 'Treatments', 'Orders', 'Users', 'Login Record', 'myAccount', and 'Logout'. The main content area features a heading 'LOG IN RECORDS OF USERS' and a table listing user log-in timestamps.

User ID	User Email	Timestamp
6	user@g.com	2017-07-14 13:44:05
6	user@g.com	2017-07-14 13:46:44
6	user@g.com	2017-07-14 13:48:58
5	DEV@g.com	2017-07-14 14:34:30
5	DEV@g.com	2017-07-14 14:48:53
6	user@g.com	2017-07-15 15:53:39
6	user@g.com	2017-07-15 17:32:46
6	user@g.com	2017-07-15 20:12:21
6	user@g.com	2017-07-16 13:18:19
6	user@g.com	2017-07-16 13:27:12
6	user@g.com	2017-07-16 13:30:40
6	user@g.com	2017-07-16 14:32:22
6	user@g.com	2017-07-16 16:15:48
6	user@g.com	2017-07-17 14:26:20
6	user@g.com	2017-07-17 20:33:51
6	user@g.com	2017-07-17 21:27:46
6	user@g.com	2017-07-17 21:34:54
6	user@g.com	2017-07-17 22:10:12

Created by WebRain @ Pearson Institute.

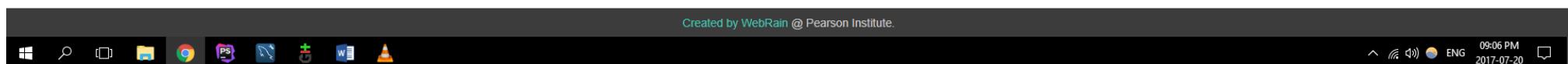
Windows taskbar icons: File Explorer, File History, Task View, Google Chrome, Photoshop, Microsoft Edge, Microsoft Word, and Microsoft Project. System tray icons: Network, Volume, Battery, ENG, Date/Time (09:05 PM, 2017-07-20).

Admin my account page:

The screenshot shows a web browser window with the URL localhost/l-elegance-beauty/app/AdminPages/AccountAdmin.php. The page title is "MY-ACCOUNT". At the top, there is a table showing the logged-in admin user's details:

You are logged in as the following Admin User	
Name:	DEV
Surname:	DEV
Contact Number:	0000000000
Email:	DEV@g.com
Activated:	Yes
Admin:	Yes

Below the table is a green "Update Account" button.



Update admin my account page:

The screenshot shows a web browser window with the URL localhost/l-elegance-beauty/app/AdminPages/UpdateAccountAdmin.php. The page title is "L'Elegance Beauty-myAcc". The navigation bar includes links for "Products", "Treatments", "Orders", "Users", "Login Record", "myAccount", and "LogOut". The main content area is titled "MY-ACCOUNT" and contains a form with fields for Name, Surname, Contact Number, Email, and Password. The "Email" and "Password" fields are highlighted with a yellow background. A green "Update" button is at the bottom of the form.

MY-ACCOUNT

Name	DEV
Surname	DEV
Contact Number	0000000000
Email	DEV@g.com
Password	...

Created by WebRain @ Pearson Institute.

09:06 PM
2017-07-20

4. Conclusion

During the completion of this document the design of the database was considered and decided on.

Diagrams were used to understand the visual design of the system.

The queries used to create the database and it's components were created and executed.

The website interface was listed of each page from the admin side as well as the user side.

The use of different technologies and how they will be integrating with each other was discussed and considered.

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