Web Technologies

Shopping Cart

Reminder

CA Moodle quiz next tuesday 14th Nov.

1 hour

Closed book, no notes etc.

Last Time

We looked at the Admin side of our Products application

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To maintain our products database

This Time

We'll look at the application from the customer view

We'll build the ability for a customer to add a product to a shopping cart

So far we have a **users** table and a **products** table

We'll create a new table to store a customer's products

Let's look at a design solution

We'll create a new table called **'cart'** and this will link the customer to a product(s)

Database Setup

If you don't have the database setup you can use the document on moodle 'Database Setup' to create the necessary tables

Adding Users

If you need a registration file to add a user to the users table download 'User Registration' from moodle under htdocs.
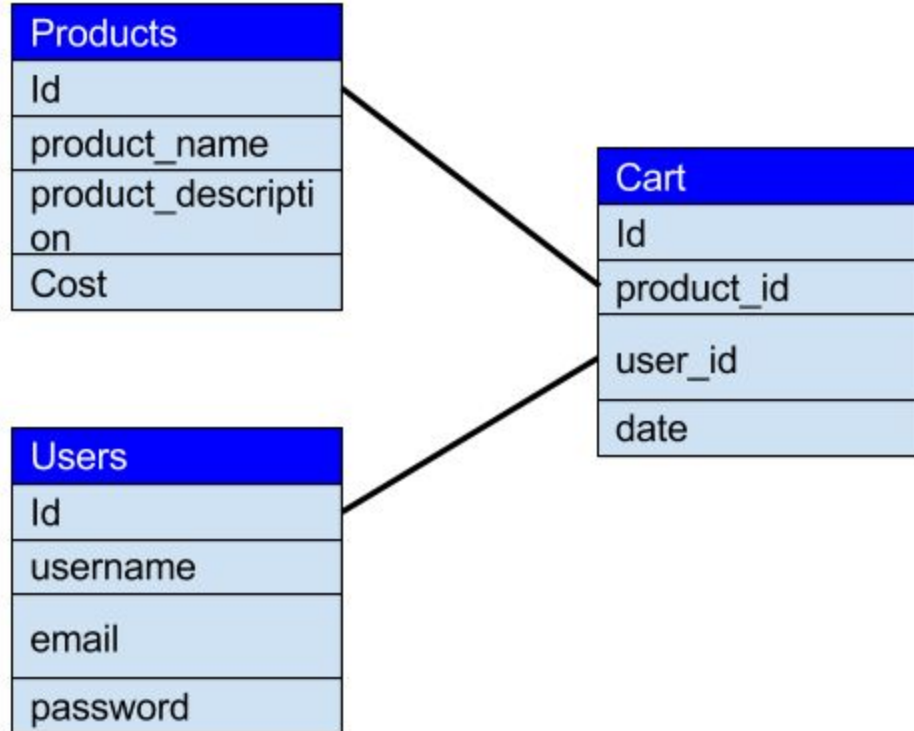
Access via localhost/lecture8/register.php

Shopping cart

Bring up **heidi** or **phpmyadmin** and create a new table 'cart' in 'wdtest'

```
CREATE TABLE cart (
    id INT(11) UNSIGNED NOT NULL AUTO_INCREMENT,
    product_id INT(11) NOT NULL,
    user_id INT(11) NOT NULL,
    date TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP
ON UPDATE CURRENT_TIMESTAMP,
    PRIMARY KEY (id)
);
```

Shopping Cart

Shopping Cart

Let's manually update the cart table with some rows. Take note of the **id** of two valid users on your **users** table and use it as the user_id in the below sql query along with 4 products from your products table (id on products is product_id)

Say for e.g. users are (ids) 9,10
          Products(ids) 4,5,6,7

Insert into cart (user_id,product_id) values (9,4);
Insert into cart (user_id,product_id) values (9,5);
Insert into cart (user_id,product_id) values (10,6);
*Insert into cart (user_id,product_id) values (10,7);*

Shopping Cart

Products

id	product_name	product_description	cost
1	PC - Dual	Laptop Lenovo - D2	709.00
4	PC - laptop	HP	689.00
5	pc	Lenovo	789.00
6	pc	Apple	889.00
7	Phone	Motorola	200.30
8	Phone	iPhone7	1060.00
9	Tablet	iPad	780.00

Cart

id	product_id	user_id	date
1	4	9	2017-10-21 19:24:58
2	5	9	2017-10-21 19:24:58
3	6	10	2017-10-23 17:02:47
4	7	10	2017-10-23 17:02:47

Users

id	username	email	date
9	seanc	sean@nmm.ie	2017-10-21 19:23:59
10	lilly	sean@nmm.ie	2017-10-23 16:59:24
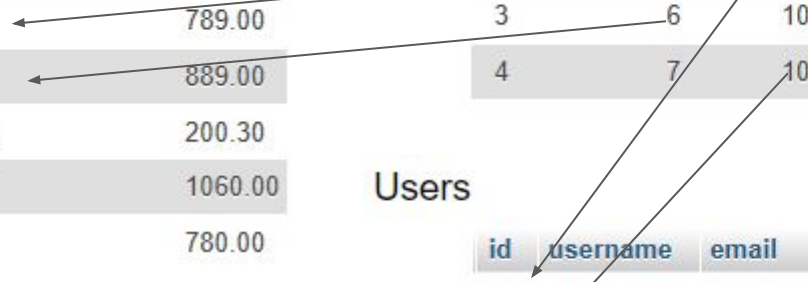
Shopping Cart

How would an admin user determine what products
are in the cart
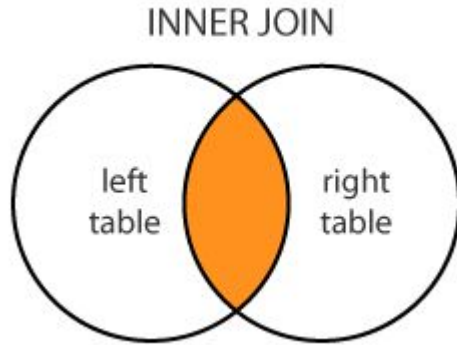
INNER JOIN

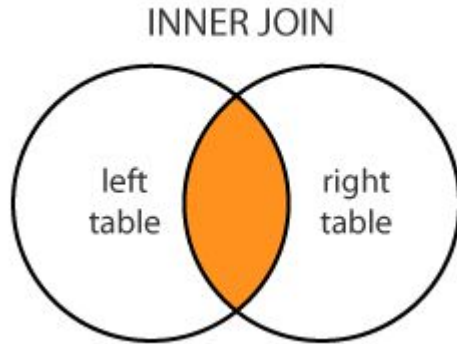left
table

right
table

Left table   - A : Products table

Right table - B: Cart table

SELECT *
 FROM Products A
 JOIN Cart B ON A.Id = B.product_id

Shopping Cart

How do we determine what's in a users cart ?
We need the **where** clause to filter based on user

INNER JOIN

Left table   - A : Products table

Right table - B: Cart table

SELECT *
  FROM Products A
  JOIN Cart B ON A.Id = B.product_id **where** B.user_id=9

Shopping Cart

What if now we said that the list of products are unique. I.e. there is only one of each product.

Once they are in the cart they are not available to anyone else.
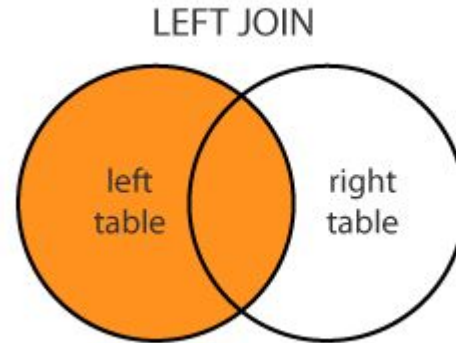
How would that change things ?

Do you see a similarity with the online book library ?

Shopping Cart

Left table   - A : Products table

Right table - B: Cart table

LEFT JOIN

left table

right table

select *
from products A
LEFT OUTER JOIN
cart B
ON
A.id=B.product_id;

Shopping Cart

id	product_name	product_description	cost	id	product_id	user_id
4	PC - laptop	HP	689.00	1	4	9
5	pc	Lenovo	789.00	2	5	9
6	pc	Apple	889.00	3	6	10
7	Phone	Motorola	200.30	4	7	10
1	PC - Dual	Laptop Lenovo - D2	709.00	NULL	NULL	NULL
8	Phone	iPhone7	1060.00	NULL	NULL	NULL
9	Tablet	iPad	780.00	NULL	NULL	NULL

Notice now we can distinguish between products in the cart and those that are not e.g. by using the product_id or the user_id

Shopping Cart

if user_id == NULL

product not in cart

else

product in cart

So if we were to iterate over the rows returned from the previous query we can distinguish between products in the cart and those that are not.

This could be used to determine what link we append to the product in a product list

Shopping Cart

foreach ($rows as $row)
show product details
if $row['user_id'] == NULL
Append (href) link to add product to cart
else
Product already in cart, no link, display message

Shopping Cart

How does admin determine what is in the cart for all users, displaying username

SELECT P.id,P.product_name,P.product_description,P.cost,U.username
  FROM Products P
  JOIN cart C ON P.Id = C.product_id
  JOIN users U ON U.Id = C.user_id

id	product_name	product_description	cost	username
4	PC - laptop	HP	689.00	seanc
5	pc	Lenovo	789.00	seanc
6	pc	Apple	889.00	lilly
7	Phone	Motorola	200.30	lilly

Finally

If time permits work on the following

- Products tutorial which is a follow on from last lecture

- do the practice moodle quiz

- work on your project