

Web Programming Assignment Design – SOSA Product Management System

My system allows the admin to add/delete clothes and accessories and update their details (brands, categories, quantity etc.).

Also allows the admin to view and search clothes and accessories, sort the products in ascending and descending order and updates it all in real time.

<http://http://student30291.bucomputing.uk/console/>

Entity Relationship Diagram

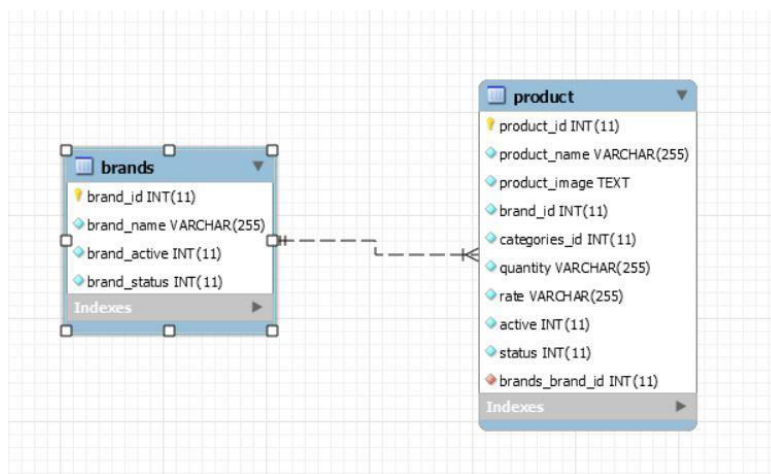
List of Entities

There are three entities used in this system. They are:

- Brands
- Categories
- Products

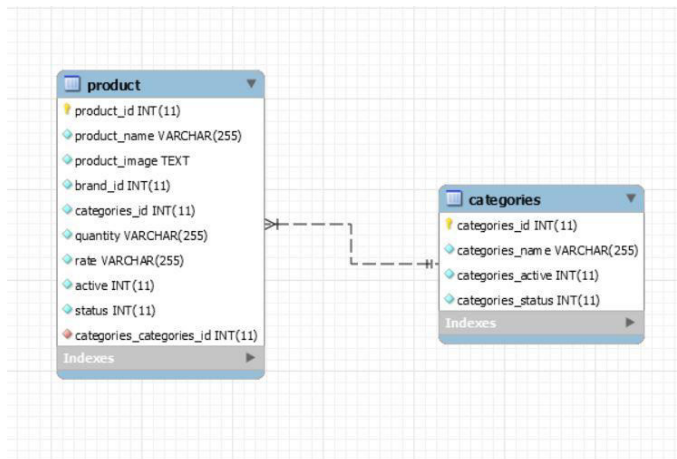
Figures below show the relationship between each entity:

Products – Brands



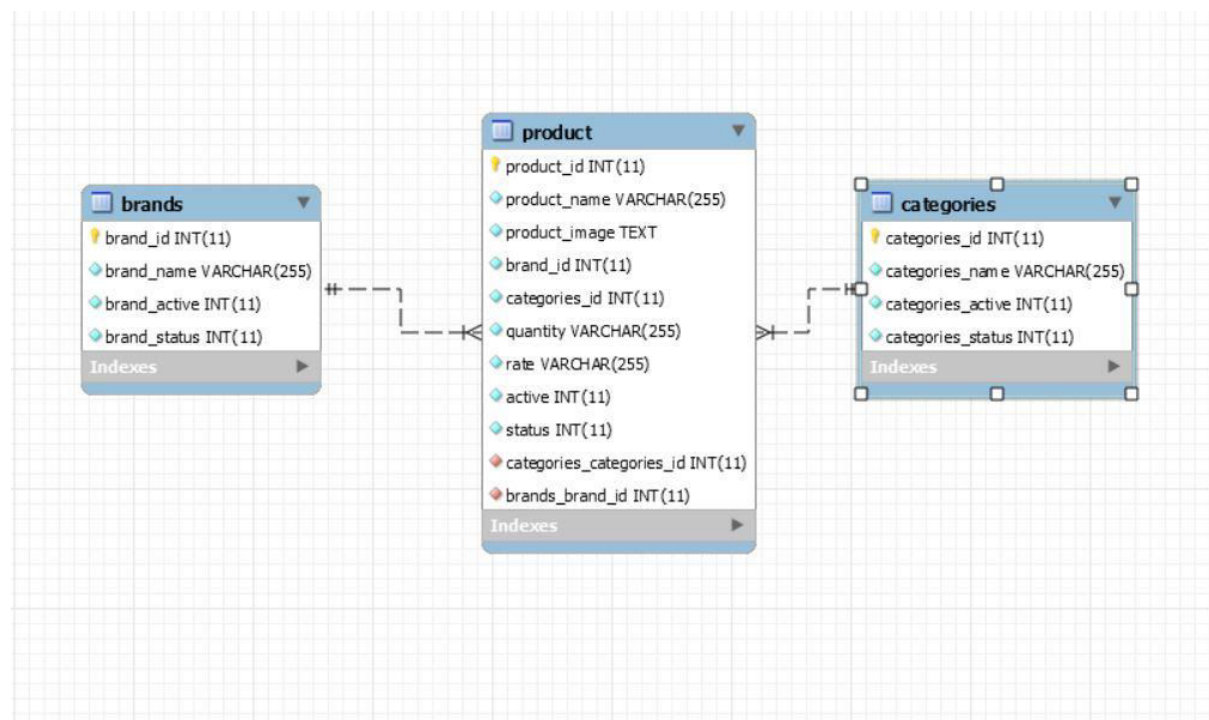
- Product has one brand
- One brand has multiple products

Product – Categories



- Product has one category
- Category has more than one product

ER Diagram



The 'product' table will act as a link table for 'brands' and 'categories'. This is because brands and categories can both have more than one product.

I chose to create 3 tables for this project because it eliminates the admin with making user errors by naming the brands and the categories differently every time.

'Product' Table

In this entity, there are 9 attributes which are:

- product_id
- product_name
- product_image
- brand_id
- categories_id
- product_quantity
- product_rate (Price)
- product_active
- status

	product_id	product_name	product_image	brand_id	categories_id	quantity	rate	active	status
▶	34	Silver Tone Bracelet Watch	../assests/images/stock/10526047865849a034...	39	28	153	79.99	1	1
	35	Blue Single Pocket Shirt	../assests/images/stock/14200669745849a384...	22	16	76	69.99	1	1
	36	Navy and Black Duffle Coat	../assests/images/stock/20694756255849a3a1...	22	13	7	89.99	1	1
	37	Leather Belt	../assests/images/stock/1412466215849a3de9...	38	29	0	49.99	2	1
	38	Tan Leather Brogues	../assests/images/stock/9429615895849a3fb95...	37	15	26	49.99	1	1
	39	Grey Zipped Action Jacket	../assests/images/stock/6908754075849a4251...	25	25	75	69.99	2	1
	40	Brown Leather Chelsea Boots	../assests/images/stock/480409925849a4cc125...	36	15	43	59.99	1	1
	41	Teal Check Flannel Shirt	../assests/images/stock/12347749605849a4e9...	40	16	22	39.99	1	1
	42	True Blue Performance	../assests/images/stock/8297477245849a4fcc4...	35	25	0	29.99	2	1
	43	Black P-Gessy Regular Fit Trousers	../assests/images/stock/4489928705849a5ec5...	38	23	43	89.99	2	1
	44	Navy Blue Wool Cardigan	../assests/images/stock/2733852615849a62d9...	25	29	32	79.99	1	1
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

There is one primary key and two foreign keys in this entity. The primary key is the Product ID and the two foreign keys are Categories ID and Brand ID. The reason why there are two foreign keys is because the Product table is a link table between the Brands and Categories table. Product Status indicates to the user whether the product is available for the customers to purchase.

'Brands' Table

In this table, there are 4 attributes which are:

- brand_id
- brand_name
- brand_active
- brand_status

	brand_id	brand_name	brand_active	brand_status
▶	19	Nike	1	0
	20	Adidas Originals	1	1
	21	Vans Shoes	2	1
	22	Calvin Klein	1	1
	23	Converse	1	1
	24	Armani	2	1
	25	Ralph Lauren	1	1
	26	Prada	1	1
	27	Dolce & Gabbana	1	1
	28	Adidas	2	1
	29	Dior	1	1
	30	Burberry	1	1
	31	Tom Ford	1	1
	32	Ray-Ban	1	1
	33	Fred Perry	1	1
	34	Ben Sherman	1	1
	35	Puma	1	1
	36	Rockport	1	1
	37	Loake	1	1
	38	Diesel	1	1
	39	Ben Sherman	1	1
	40	Vans	1	1
*	NULL	NULL	NULL	NULL

There is only one primary key in this entity, no foreign keys; the primary key is Brand ID. Brand Active tells the admin whether the brand is available for customers to purchase. Brand Status is used to make sure the Brand has successfully been added to the table on the site.

'Categories' Table

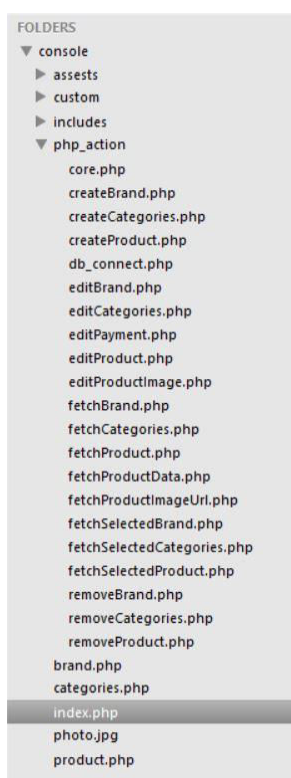
In this table, there are 4 attributes, just like on the 'Brands' table. They are:

- categories_id
- categories_name
- categories_active
- categories_status

	categories_id	categories_name	categories_active	categories_status
▶	13	Coats	1	1
	14	Jackets	1	1
	15	Footwear	1	1
	16	Shirts	1	1
	17	Sweaters	2	1
	18	Vests	1	1
	19	T-shirts	1	1
	20	Lingerie	2	1
	21	Underwear	1	1
	22	Socks	1	1
	23	Trousers	1	1
	24	Shorts	1	1
	25	Sportswear	1	1
	26	Scarves	1	1
	27	Headwear	2	1
	28	Watches	1	1
	29	Other	1	1
*	NULL	NULL	NULL	NULL

The functions of each attribute in this entity are very similar to the Brands table; the primary key is Categories ID.

PHP



I separated out the actions into their own PHP file so it makes the development much simpler. The 'db_connect.php' file makes sure that the user has connected to the database containing the three tables.

The 'core.php' file contains a 'start_session'. This function returns TRUE if a session was successfully started, otherwise FALSE. The rest of the PHP files contain 'require_once' for the 'core.php' file.

There is a PHP file for each webpage, ('index.php', 'products.php', 'categories.php' and 'brand.php'). Each of them contains a 'require_once' function for the header and the footer to make sure that they are on the pages.

Test Cases

No.	Purpose	Expected Response	Actual Response	Conclusion
1	Accessing each web page effectively	Accesses the site quickly without any errors	Changed to the site that the user required	Links are all working as the user expected it to
2	Adding, Editing and Deleting a Product working as required	Able to complete all the tasks, but may have some problems at times.	Found no errors with the four tasks that were required by the user.	Actions are working effectively
3	Adding, Editing and Deleting a Brand working as required	Able to complete all the tasks, but may have some problems at times.	Found no errors with the four tasks that were required by the user.	Actions are working effectively
4	Adding, Editing and Deleting a Category working as required	Able to complete all the tasks, but may have some problems at times.	Found no errors with the four tasks that were required by the user.	Actions are working effectively
5	Using the Search bar to find a specific Product	Search bar working as the user wanted it to.	Works well, however the search sometimes doesn't narrow down the product as much as the user wants.	Search works, if the user enters the first two letters of the product, it always finds it. Quick and easy to find the product you are looking for.
6	Using the Search bar to find a specific Brand	Search bar working as the user wanted it to.	Works well, however the search sometimes doesn't narrow down the brand as much as the user wants.	Search works, if the user enters the first two letters of the product, it always finds it. Quick and easy to find the brand you are looking for.
7	Using the Search bar to find a specific category	Search bar working as the user wanted it to.	Works well, however the search sometimes doesn't narrow down the category as much as the user wants.	Search works, if the user enters the first two letters of the product, it always finds it. Quick and easy to find the category you are looking for.
8	Trying to add/edit a product that has a negative number in the price or quantity section.	Completes some of the tasks, has problems at times. Easy to fix problem faced.	Found no errors with the four tasks that were required by the user.	The user is not able to put a negative number in the price and quantity section. If they do, an error occurs and will have to try again.
9	Using the sort function in each of the sites to sort the tables in ascending or descending order.	Expecting the sort function to work sometimes, but not all the time.	Sometimes when the user is trying to sort the table in the products page, it doesn't respond. I was able to find the error causing it.	I was able to fix the problem; the sort function is working as expected now.

More test cases provided in the other document!

WP Assignment 1 Self-Reflection Sheet



	Yes (completed)	Partially completed	No (not submitted)
Report			
Database design	Completed		
Test cases	Completed		
Sample data	Completed		
System			
Search function	Completed		
Edit function	Completed		
Add function	Completed		
Delete function	Completed		
Additional features	Completed Pagination, Sorting and Real- Time Update		
Robustness & Security	Complete		

In your own opinion, what is the best part of your work?

The ability to add, edit and delete products without the website refreshing every time. Also sorting products in ascending and descending order is really quick and simple to use.

In your own opinion, what is the worst part of your work?

Sorting can become a problem at times, however typing into the search more than one character will give the user the product they were looking for.

In your own opinion, what is the part you struggled most with?

I struggled most with creating the model so that it can add, edit and delete products in real time.