Tamonne Cotodie 214078353

Luxolo Mpisane 213051834

Songezo Mkumatela 213054299

Lonwabo Tsipa 214306259

Bonakele Lesibane 213241862

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Deliverable 4(Documentation)

Submitted as part of

Development Software 3

In the

ND: Information Technology (I.T)

Program at the

Cape Peninsula University of Technology

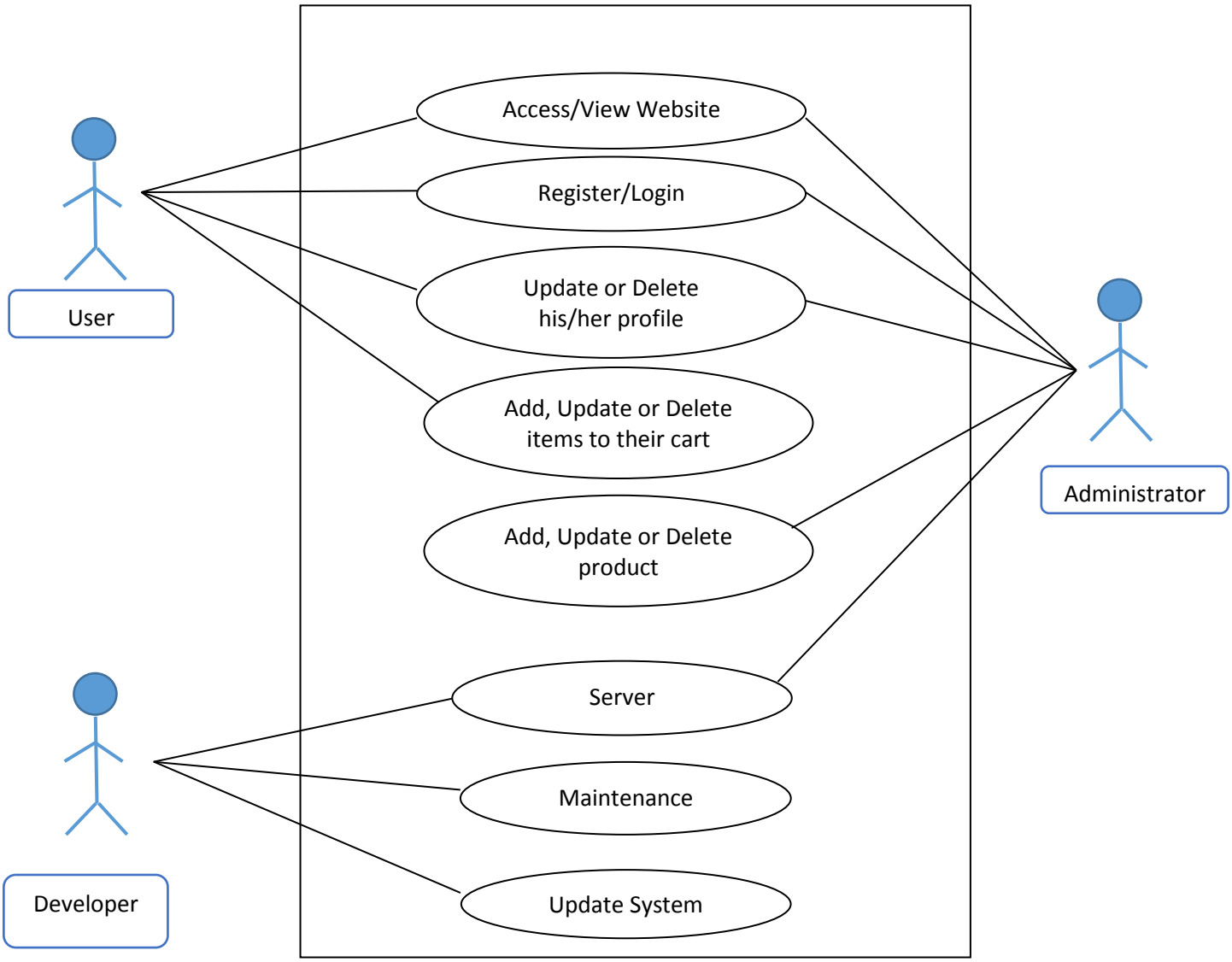
System Documentation

Where to get the source code

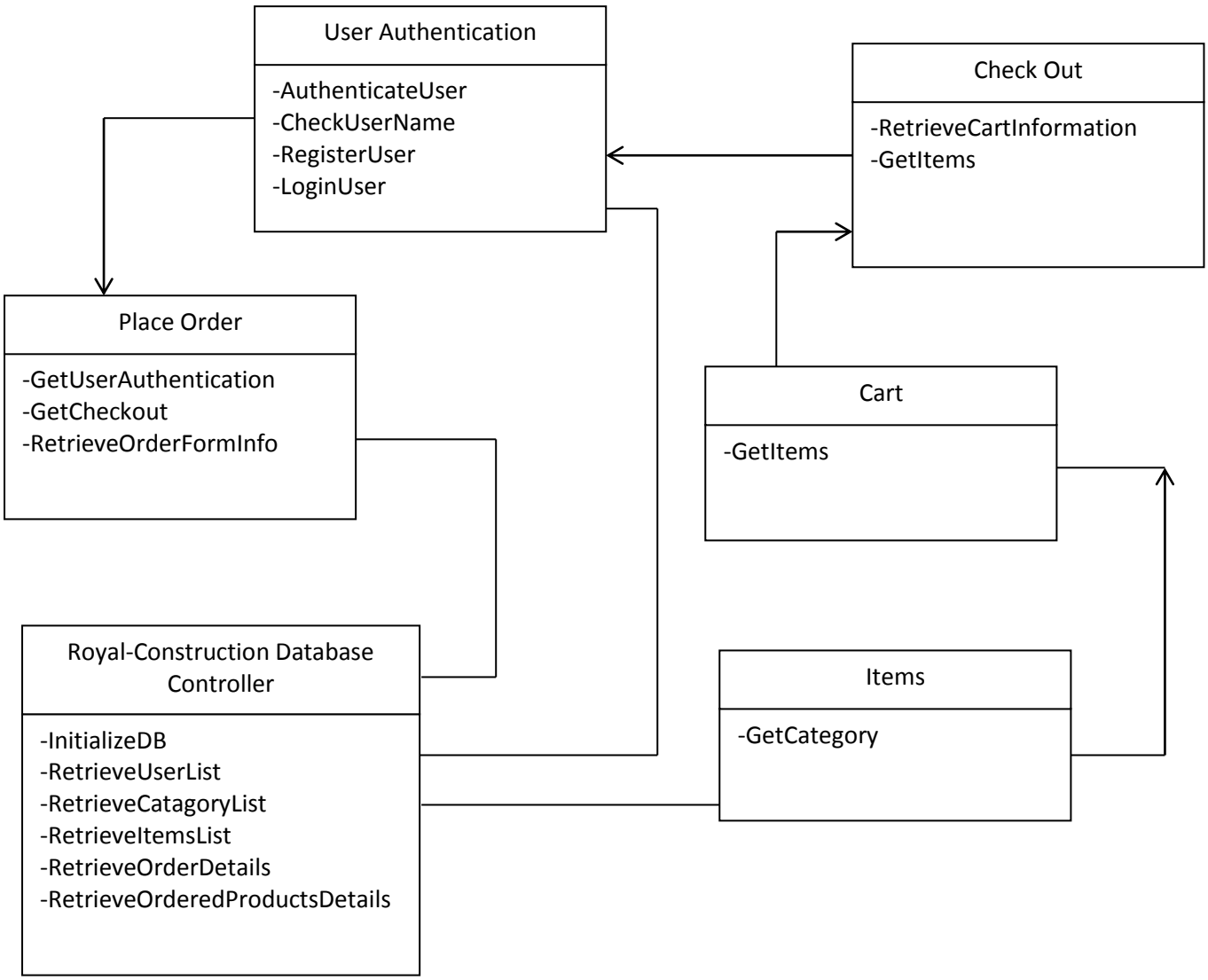
The source code is accessible from Github. If the client wants the source code, they can access it from there but our clients have nothing to do with the source code and chances of them requesting it are very slim because their focus is only on the functionality of the system.

Design Documents (Diagrams)

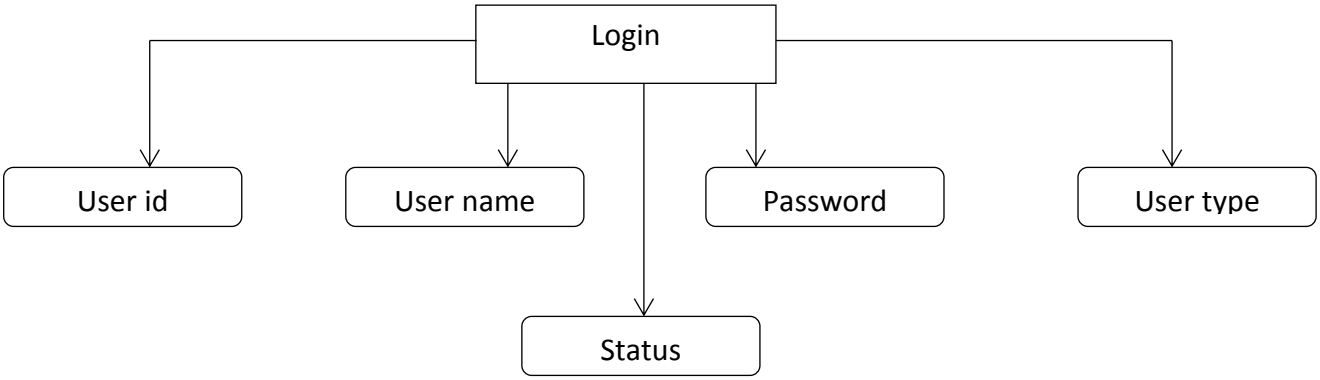
Use case diagram



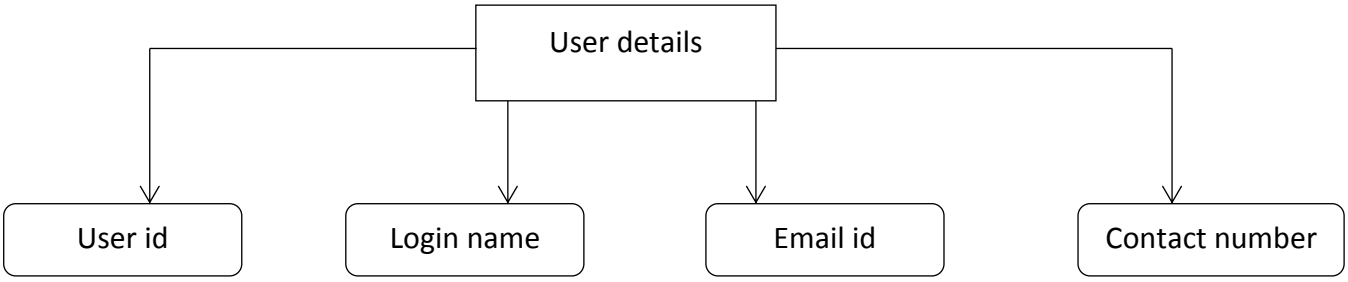
Class diagrams



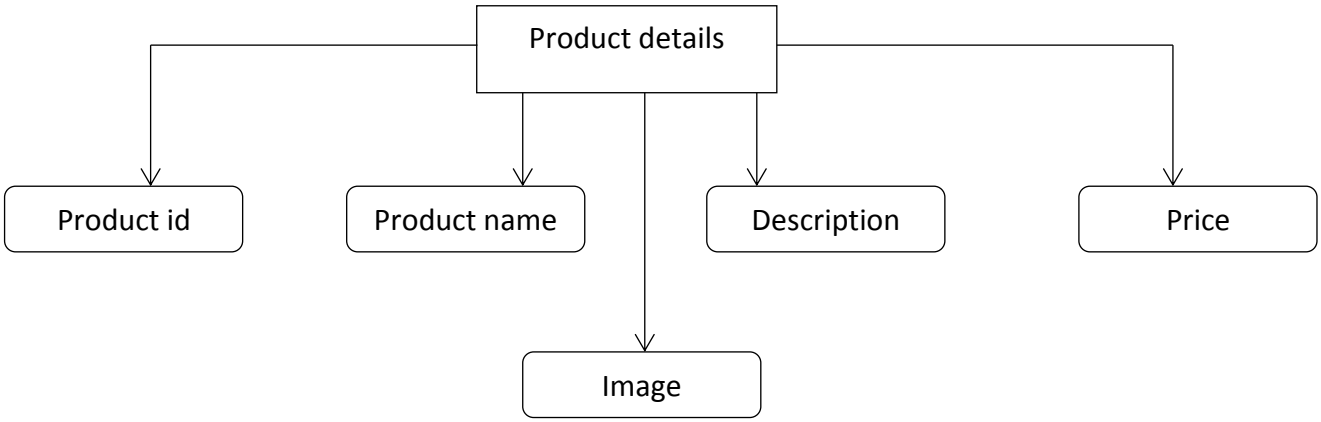
Entity Relation Login



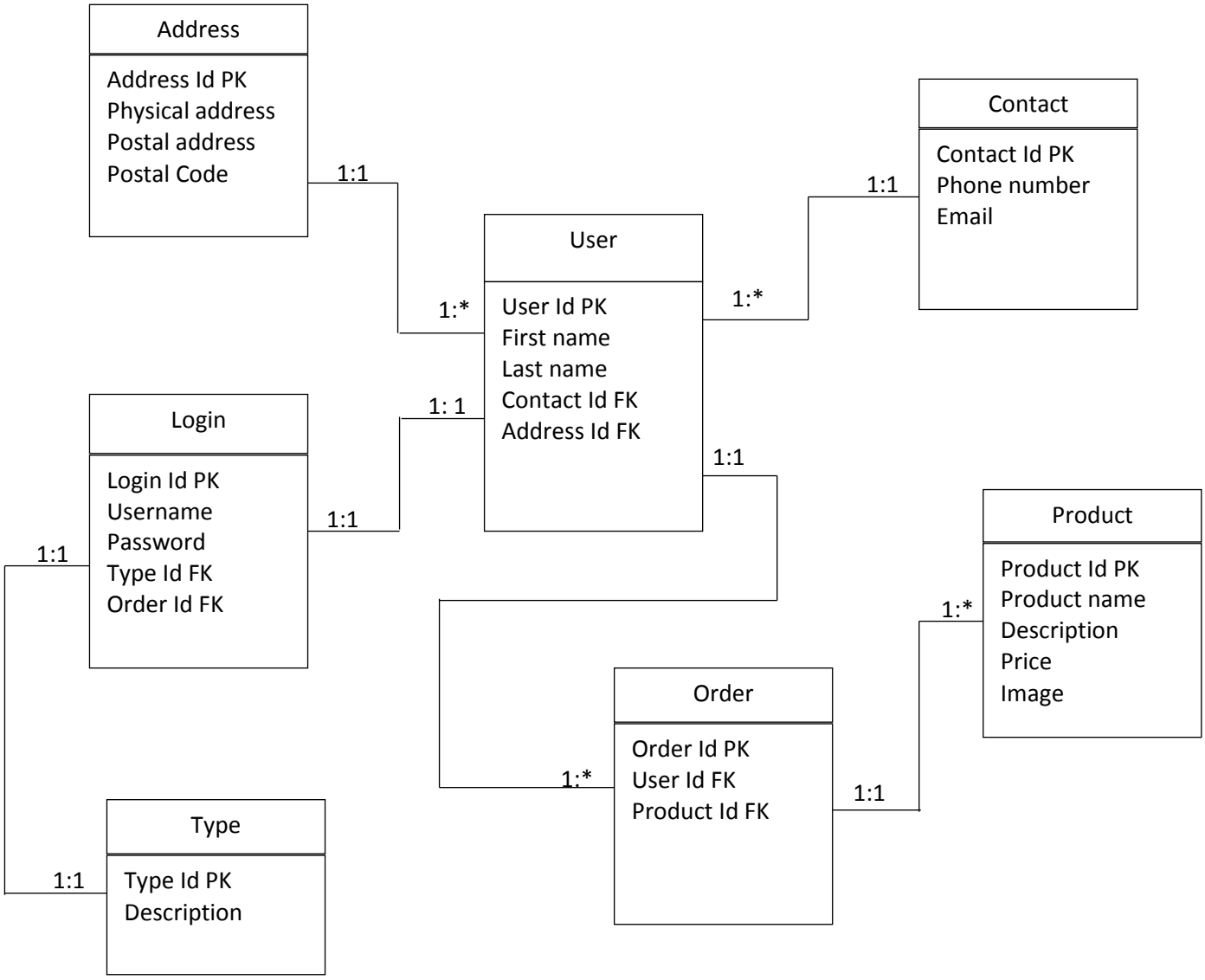
Entity Relation User details



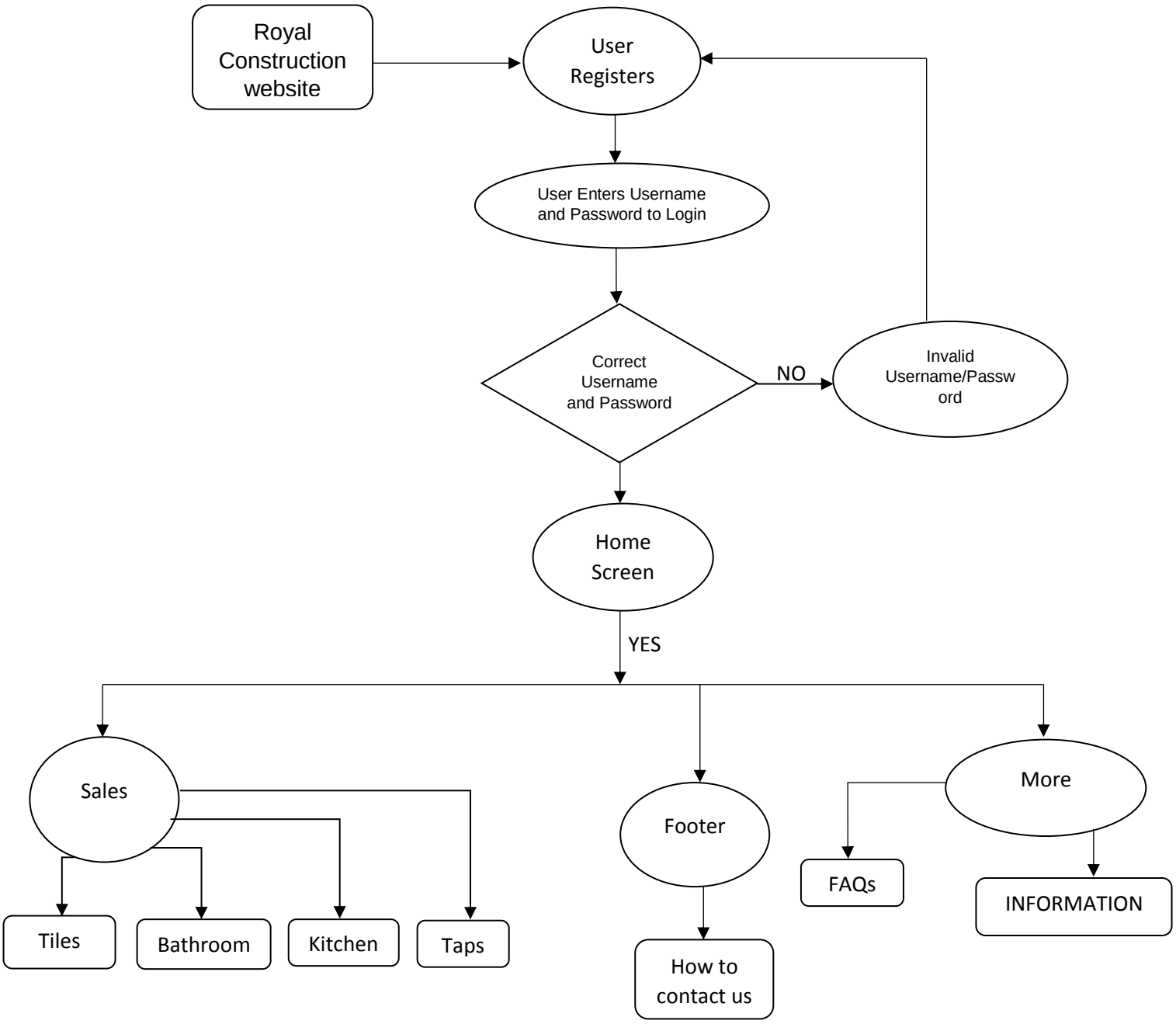
Entity Relation Product Details



Entity Relation Complete Diagram

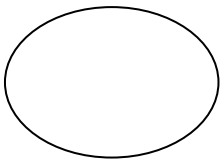


Activity Diagram



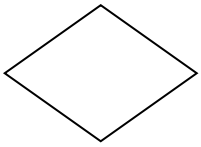
Shapes that explain above diagram

Menu and sub-menus →



Activity →

Options →



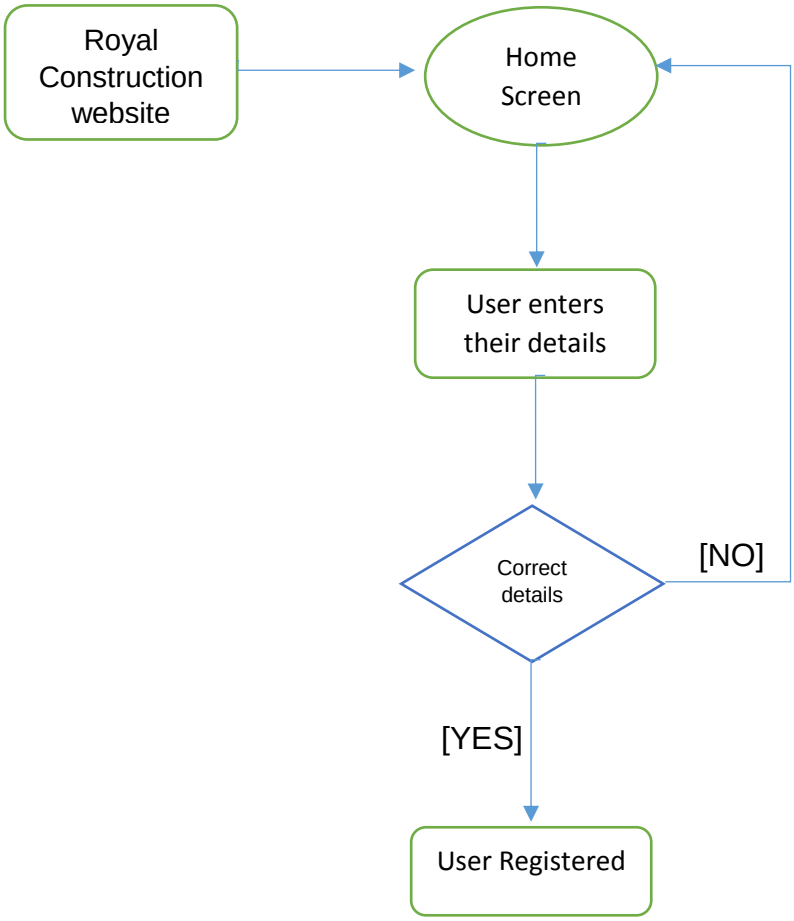
Use Case Description

Use Case Id	1
Application	Royal Construction Website
Use Case Name	Home Page
Actors	Administrator or User
Use Case Description	This use case lets the user or administrator view the home page which has different categories when they first run the application.
Preconditions	Run the application to view the home page and browse different categories.
Post conditions	The user successfully runs the application and is able to view the home page with the different categories.
Normal Flow	➢ Run the application ➢ View the home page ➢ Browse the categories ➢ Select a category ➢ Browse through the items

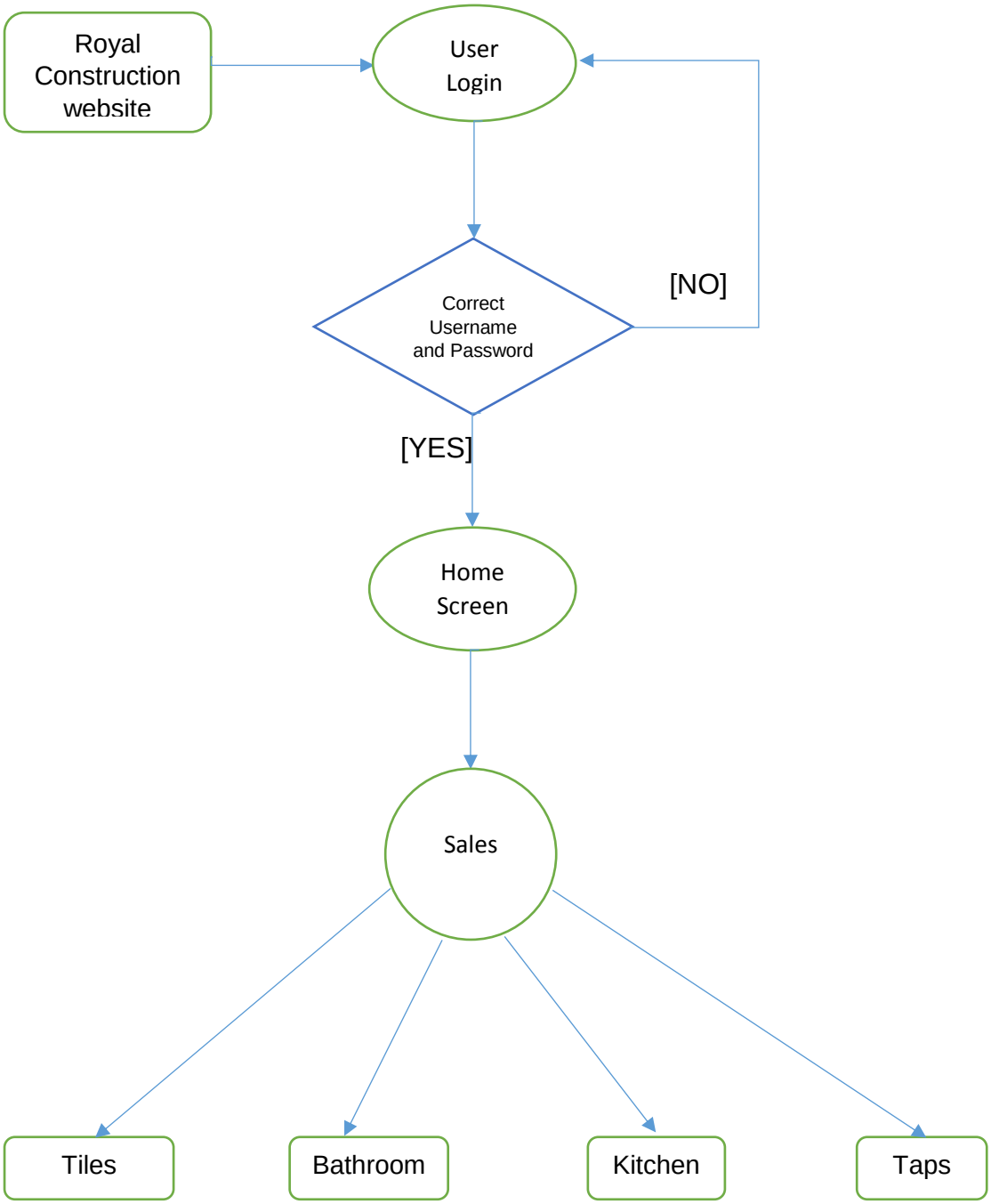
Use Case Id	2
Application	Royal Construction Website
Use Case Name	Royal Construction
Actors	Administrator, User and Developer
Use Case Description	This use case helps the User or Administrator to check out items in the shopping cart by logging into the user-authentication form.
Preconditions	The user or administrator is able to login or register on the user-authentication form.
Post conditions	The user is successfully able to log in.
Normal Flow	➢ Run the application ➢ View the login page ➢ Enter the username and password ➢ Login/Register ➢ View cart page ➢ Click the checkout button ➢ Enter the information in the Order Form ➢ Place order is success. ➢ Developers maintain and update the system ➢ Administrator can also add system users and add system user's roles
Exceptions	➢ Enter the username and password. ➢ Login/Register ➢ Enter the information on the order form ➢ Invalid/Incomplete information ➢ Place order is not allowed

System Sequence Diagram

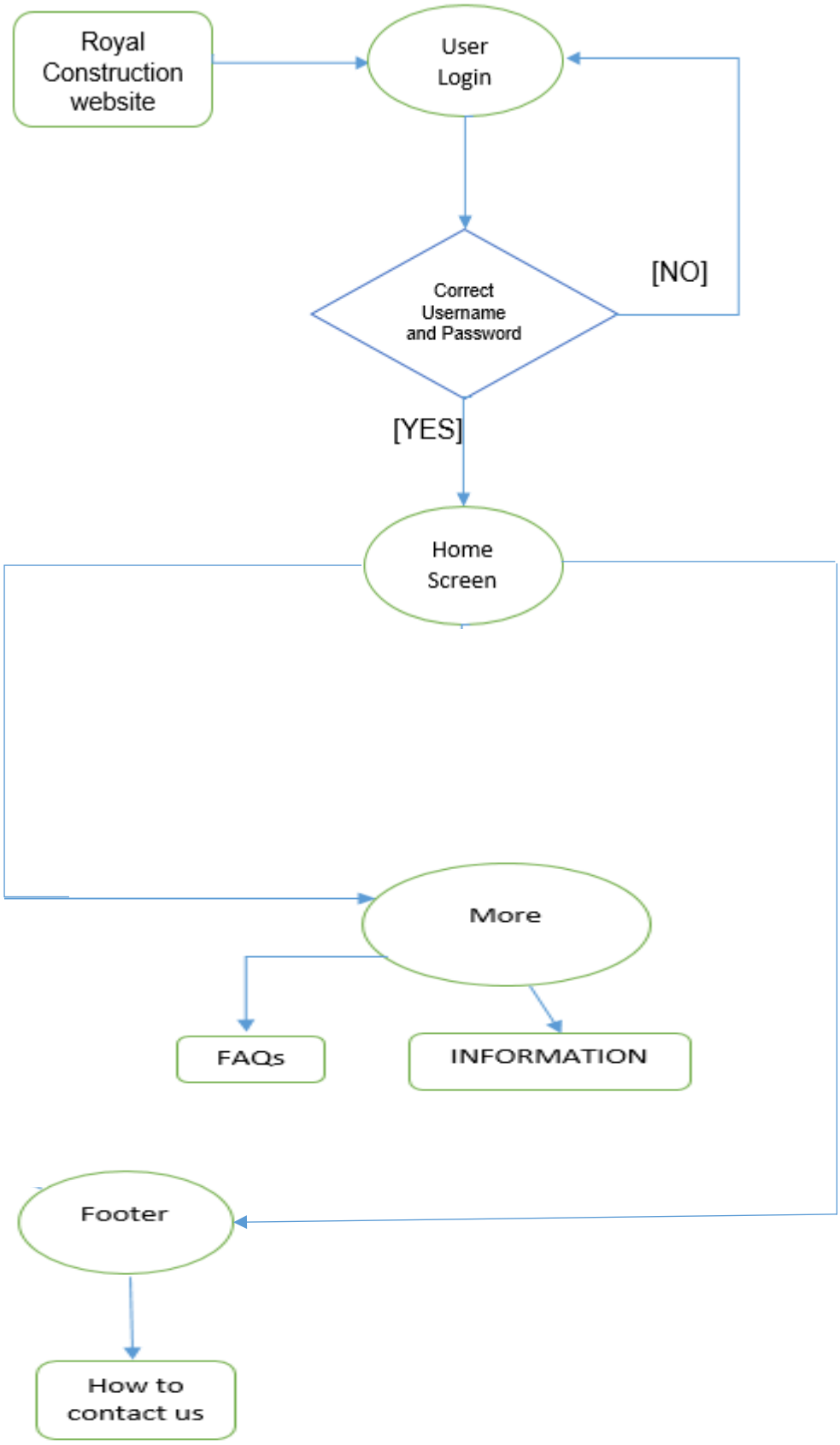
- Register a User



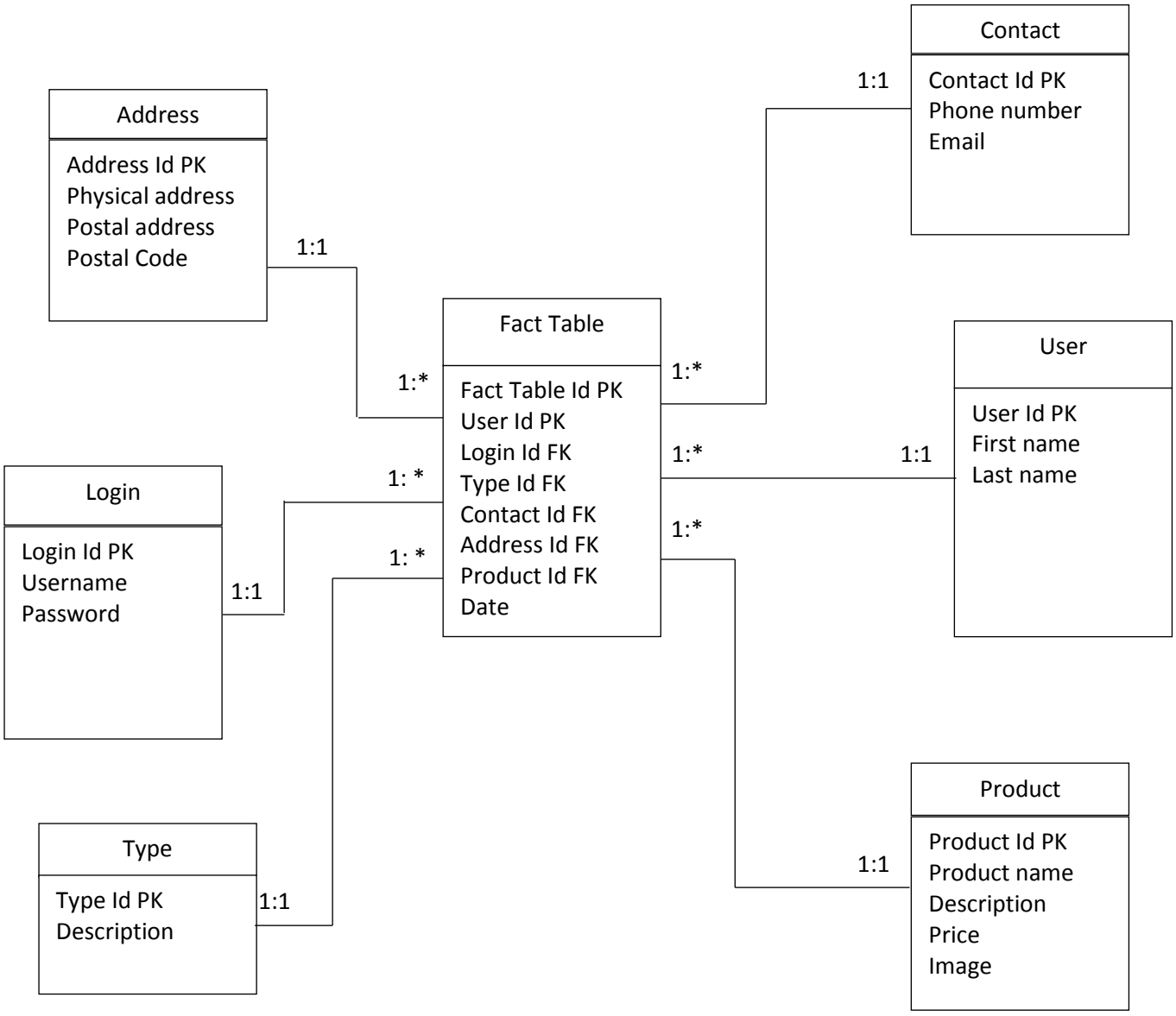
Make a purchase



- More, FAQ and Information



Star Schema


Contact
Contact Id PK
Phone number
Email
1:1
Address
Address Id PK
Physical address
Postal address
Postal Code
1:1
Fact Table
Fact Table Id PK
User Id PK
Login Id FK
Type Id FK
Contact Id FK
Address Id FK
Product Id FK
Date
1:*
1:*
User
User Id PK
First name
Last name
1:*
1:1
Login
Login Id PK
Username
Password
1: *
1:1
1: *
Type
Type Id PK
Description
1:1
Product
Product Id PK
Product name
Description
Price
Image
1:1

Test Data

The test plan for the website is to use a test the website using a method called CRUD (Create, Read, Update and Delete) which makes sure that almost every functionality of a system gets tested if it is ready to be deployed for clients to utilise. We had a test plan which had the following test cases:

- A test case for testing a user can create an account or register into the website whereby we used dummy information for completing that process, when a user registers they must enter the Name, Surname, Address, Email and Banking details. The test case was done to check if the web service can create a user profile using the required fields
- When it came to the second part of our CRUD, we tested if the website can read a registered user by retrieving a user from the database. On the top panel of the Home page, there is a Login link which gives a user a small pop up window which provides the user with the Email and Password input boxes. After the user has hit the submit button, it logs in the user after verifying the users credentials and there is a toast on the screen that welcomes the user with a user friendly message that has the user Name and by completing that, we have tested that the website can read from the database.
- The website has a second panel underneath the one with the Login link, which has Tabs like Home, Tiles, Bathrooms, Taps, FAQ and Information and a user uses those tabs to make a purchase on the website. We made a user to purchase one product from one of the products on offer and that are available, so to check if the website can Update as according to our testing method that we have chosen to test our website and data, then we refreshed the page after that to see if the website's available products would be Updated.
- As products come and go out of fashion, we would add or delete some items on the website according to the demand of certain products by the customers, so that customers do not see products that are no longer there in stock, that is how we tested if our Delete function works as to the criteria of testing that we chose. After testing the delete functionality that completes at least the rest of our priorities that needed to be tested before the website can be used by people who will be paying to use it.
- As we mentioned above that we are using dummy data to test the website as it is being tested before it goes live or for deployment in order to be used by our target market.

Tricky areas

We believe that we have built our system in a very simple and straight forward design so that it can accommodate almost everyone who wishes to use it but not everyone is familiar with today's technology, hence we also provided the two tabs "FAQ" and "INFORMATION" so as to give as much assistance as possible should anyone feel confused by what is happening on the website, otherwise the website is built in a user friendly way that accommodates all.

Tricky areas

The system is straight forward, it has no tricky areas or places whereby you come across the unexpected.

Implementation instructions

When we providing the company/client with the system, we simply give the link to the site because our system is a web based system. So the client just needs to go the browser of their choice (any) and type the address for the system and they are good to go.

Start-up, backup and shutdown procedures

To start the system, you go to the browser and type the link of the system and log in to the system, the backup is in the cloud/server and you just logout when you want to shut the system down.