# Project Requirements and Database Design

## Project Requirements

Definition of the system. – Stores data about the list of licences that the client sells and then records the purchases when a customer buys a licence.

Scope of the system – The scope of the database is that it will be accessed by the server to display the list of licences to the user before purchasing a licence and to read the price of a licence. The database is then written to when a user has purchased a licence with details of the user and the purchase. On the admin side of the website, it reads details about the purchase history and allows them to modify details about a licence. When a customer has logged in, it reads details about the customers purchases and allows them to modify their details.

List the entities within the Universe of discourse.

* Customers
* Licences
* Tiers
* Licence Lengths
* Prices
* Purchases
* Countries
* Admin
* Reviews

List all system requirements and business rules.

The system needs to store the basic details about a licence i.e., name and description. For each licence they have their own tiers that can change. The prices table joins together the tiers and the licence length tables and has a price for each. The prices will change, which means that the history of the prices for a tier and length need to be stored so that the admin can see the history of the price.

Details of the purchase must be stored with details about the customer, licence purchased and the price the customer paid. The price is stored with the purchase so that the price which the customer paid is saved and doesn’t get changed when the price of licences is changed. Storing the price also allows the client to offer a different price for a specific customer and that the price will still be recorded.

When the customer proceeds to checkout they are asked for their details. They can later make changes to them by logging in using a link sent in the purchase confirmation.

When a customer enters their details, they are asked for their country. A select box appears which shows a list of different country names. When the customer selects a country name, the respective 3 letter iso code is saved to the customer’s details. This information is useful as VAT rates may apply to the countries where customers are located, which changes the overall price of the product.

When a customer has made a purchase and are logged in then they can leave reviews about the company. These reviews get written to the database and then the admin has the ability to moderate the reviews before they get displayed on the website. Each customer can only leave one review so if they submit another review then it overrides the review which is already stored on the database.

The details about each of the admins need to be stored on the database. This allows the server to read a list of admin email address from the database for which the admin emails can be sent to.

## Database Design

Explanation of the schema

Purchasing licence

Pricing of licences

Customers and country

Naming convention