

Conceptual Design

We set out to create a database for a company managing pubs and bars throughout the United Kingdom. The purpose of the database is to keep track of the staff, menu, any orders of stock and demographic information for each pub. The users of the database will all be members of staff within the company and will not be accessed by any of the customers. We will however hold demographic data on the customers of the pubs such as the average age of the clientele at a certain bar. The various users would have access to different views and the ability to write to certain tables on the database in accordance with their job role. Whilst designing the tables we took into consideration data retention for cases where if a certain table was deleted then tables containing its primary key as a foreign key would be set to null rather than completely being removed.

Users

We have a number of different levels of users who will have access to different parts of the database based on their job role within the company.

The CEO will need read access to most of the database since they're the managing body of the company. This will require custom views where they can see all of the demographic information and the sales for all of the various pubs within the chain. They will not require access to sensitive information such as staff bank account details or passwords since this information is irrelevant to them.

The payroll team will need access to all of the staff information, except their passwords, in order to handle wages and recruitment tasks. For this they will require the ability to read the database, insert new employees, update any relevant information due to promotion or changes in the employee's information, and also delete any employees that no longer work for the company.

A manager for a bar/pub will need read access to all the data for their own particular pub. They will also need the ability to create, delete and even

update any orders of drink and food components for their particular pub. They will not need the option to view other pubs in the chain.

It is a legal requirement for an individual to have access to any data held about themselves, and for this reason Staff must have read access to all their own personal information. This gives them the ability to inform the payroll team if any information held about them is inaccurate.

Demographic Information

The demographic information that we are interested in would be the average age of the clientele, the monthly sales at a branch, the entertainment available at the branch. The CEO would be able to compare these demographics across the portfolio of bars to see which are more popular and supports them to make long term decisions based on this. For example, the CEO might notice that the bars with tv facilities available as entertainment are more profitable and this allows the CEO to make a decision on whether or not to add this facility to more of the bars.

Assumptions

In order to simplify the database we have made certain assumptions. Firstly we have assumed that all staff within the company are paid on equal wage bands in accordance with their role, and the bar staffs hours are set locally at each pub. Secondly we have assumed that it is feasible to gather information on the customers at each establishment, including age and gender. This could perhaps be accomplished through prize raffle registrations or loyalty card schemes.

Geopolitical Concerns

With regards to geopolitical concerns and potential expansions into new regions, we would need to consider the implications of local taxes and duties on running costs. For example alcohol tax, import duty on food and beverages that could not be sourced locally, minimum wage. These would all affect the required markup in order to offset running costs.

We would need to analyse the population demographics in potential expansion locations and compare them to our current establishments in order to see how best to cater to the local residents. For example popular food and drinks, what entertainment and facilities are standard.

In terms of our frontend we would need to consider how to cater to users in different countries, ensuring that our interfaces would function in other languages. We could also consider the impact of local Data Protection laws on our database, what information could be stored and what information employees have a right to request from the database.

User Interface

The user interface is made up of buttons and drop down menus that allow the user to perform specific searches and actions based on their job role. It will allow them to navigate between searching and creating entries for employees and orders.

Word Count: 802