GOURMET RESTAURANT MANAGEMENT SYSTEM

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1   Member Duties

The database system is part of the modelling component of the Model View Control (MVC) system. This system will be programmed using SQLite and the Django application framework. These were carefully selected so that they can merge with Python which is used for the front end of the project. SQLite is a default Django database adapter used to store data. Django is a web framework which connects SQL database systems and Python. There are two clients which will be considered for the design of the restaurant. Namely, a regular client and a temporal user. Other users include the restaurant manager, an auditor and a software administrator. These individuals are able to interact with the user interface of the Gourmet restaurant system.

The system considers a registered client as a regular client. This client has database table entities are illustrated in Table 1. During the registration process a table is created for the entered details of the client. The client then becomes a member of the restaurant database system. Furthermore, the client has an option of updating the particulars thus updating the database table. This is then followed by the creation of a table for the clients regular orders or meals. Regular clients are also given the opportunity to view previously ordered meals this means that the GRM database system will also have a table for the previously ordered meals. Theres also a login page which will capture the clients details and search it amongst the restaurants client database.

The temporal client only interacts with the reservations, make orders, view menu, prices and ingredients buttons of the Graphical User Interface (GUI). This means that only the GRM database table of orders and payment table would be updated as a new order is placed by the temporal client.

The manager will be involved in the analysis of the client feedback and also deal with the issue of loyalty points. Furthermore, changes to the meals and specials are also delegated to the manager. Thus the manager can update the database menu and specials tables. Access to the client database (to add or delete clients) and monthly invoices is also given. The GRM database system only has one table which consists of the login details of the manager such that these are verified every time the manager logs in. This is to ensure the system security against hackers.

All the accounting details of the restaurant are monitored by the auditor. The auditor is able to change prices of meals, keep track of the number of successful orders and reservations and then finally calculate the total daily income of the restaurant. A table of login details of the auditor is created and secured. Once the auditor particulars have been verified, updates to the database meal price table, payments table, order table and reservation tables can be allowed.

Login details are required to allow the software administrator for the maintenance of the software.

Table 1: Table illustrating entities of the database tables

Table	Field or Entities
Client	Client ID (primary key), Name, Surname, Phone number, email address
Administrator	Manager ID (primary key), Client ID (foreign key), Name, Surname
Auditor	Auditor ID (primary key), Name, Surname
Software administrator	Administrator ID (primary key), Name, Surname
Menu	Menu ID (primary key), Menu Item ID (foreign key), Price, Meal types
Menu Item	Menu Item ID (primary key), Orders ID (foreign key), details, ingredients, type, quantity, price
Orders	Orders ID (primary key), Order ID (foreign key), date, availability status, window period
Order Details	Order ID (primary key), Menu Item ID (foreign key), quantity, total price
Reservations	Reservation ID (primary key), Client ID (foreign key), reservation date, confirmation time, cancellation time, count
Previous Orders	Previous Order ID (primary key), Client ID (foreign key), Order ID (foreign key), date, amount paid
Specials	Special ID (primary key), Menu Item ID (foreign key), date of availability, discount price
Client Payment Method	Payment Method ID (primary key), Client ID (foreign key), payment type, card number
Payment	Payment ID (primary key), Payment Method ID (foreign key), date of payment, amount of payment