

## Functional Requirements Analysis

Requirement	Details
The system shall only allow access to members of the administration staff	<ul style="list-style-type: none"> <li>-Only Julie (the restaurant manager), Robert (the Sommelier) and two unnamed administration staff members are authorised to access the system</li> <li>-Therefore, a login page (username and password) is essential</li> </ul>
The system shall ensure that adding suggested wines to the menu is a privileged action	<ul style="list-style-type: none"> <li>-Only Robert (the Sommelier) is authorised to add suggested wines to a dish (from a menu)</li> <li>-Therefore, this action must require a password (presumably known only to Robert)</li> </ul>
The system shall allow the placing of an order on the supplier's website	<ul style="list-style-type: none"> <li>-The application will have a button that takes the user to the supplier's website</li> </ul>
The system shall allow access to an external payroll and HR system	<ul style="list-style-type: none"> <li>-The application will have a button that takes the user to the external payroll/HR system</li> </ul>
The system shall ensure that the kitchen team have all the data they require (from the management team)	<ul style="list-style-type: none"> <li>-A list of ingredients that will be available from the supplier (for the duration of the coming month) - sent monthly</li> <li>-Order details consisting of an item/ingredient and its corresponding quantity - sent upon every order</li> </ul>
The system shall ensure that the FOH team have all the data they require (from the management team)	<ul style="list-style-type: none"> <li>-A weekly menu consisting of a list of dishes - with pricing, description, allergen information, and suggested wine(s) for each dish - sent weekly</li> <li>-An up-to-date sales graph (read-only) - frequency of sending unknown (make logical assumption)</li> <li>-A half-hour diner/cover limit value - sent upon every modification</li> <li>-A pre-booking capacity value - sent upon every modification</li> <li>-A maximum dining capacity value - sent upon every modification</li> </ul>
The system shall allow the management team to receive all the data it requires from the kitchen team	<ul style="list-style-type: none"> <li>-A weekly menu consisting of a list of dishes - each dish has a list of ingredients and a corresponding quantity for each of those ingredients - received weekly</li> <li>-A stock level update for a specified item/ingredient - received upon request</li> <li>-Stock level updates for one or more ingredients - received when stock has reached a number below its low-stock threshold - received upon event</li> </ul>
The system shall allow the management team to receive all the data it requires from the FOH team	<ul style="list-style-type: none"> <li>-A list of sales - each sale has associated information, namely the total amount of money taken, method of payment and the dishes that were ordered - frequency of receiving unknown (make logical assumption)</li> <li>-A list of bookings - each booking has associated information, namely a name, a number and the type of booking - frequency of receiving unknown (make logical assumption)</li> </ul>
The system shall allow the reviewing of menus	<ul style="list-style-type: none"> <li>-The process of reviewing consists of the following (for each dish in the menu): <ul style="list-style-type: none"> <li>--adding a description</li> <li>--adding a price</li> <li>--adding a list of allergens (clearly labelled/highlighted)</li> <li>--adding a list of suggested wines</li> </ul> </li> </ul>

Requirement	Details
The system shall ensure that the price of a dish is calculated correctly and according to specified criteria (that is adjustable)	<ul style="list-style-type: none"> <li>-The price of a dish is calculated by multiplying the total cost of the ingredients (for that dish) by a multiplier, e.g. 500%.</li> <li>-The multiplier is changed periodically (and the system must allow this)</li> </ul>
The system shall store information regarding the price of all ingredients that are ordered/used	-In order to calculate the appropriate price of a dish, the total cost of the ingredients (for that dish) must be known.
The system shall store information regarding the stock of wines, and allow this information to be updated/alterd	<ul style="list-style-type: none"> <li>-The stock of wines in the cellar are tracked, so that the Sommelier only suggests wines that are in stock</li> <li>-The current stock level of a wine(s) needs to be tracked in order to ascertain whether it needs to be restocked</li> </ul>
The system store information regarding which of the ingredients that were ordered are in need of restocking	-Either through manually requesting a given item/ingredient's stock level, or through an update given by the kitchen team, the management team needs to document which ingredients are in need of restocking
The system shall store information regarding which staff member(s) is on holiday at any given time	-This information is used to determine the half-hour diner/cover limit, the pre-booking capacity and the maximum dining capacity
The system shall store information regarding, and allow the manual adjustment of: a half-hour diner/cover limit, a pre-booking capacity and a maximum dining capacity	<ul style="list-style-type: none"> <li>-The half-hour diner/cover limit is used to ensure that the number of diners remains at a sustainable level (given the amount of available staff)</li> <li>-The pre-booking capacity determines how many tables/seats the FOH team can allow online bookings for</li> <li>-The maximum dining capacity determines the total number of tables/seats available for that day (given the amount of available staff)</li> </ul>
The system shall allow an order to be compiled	<ul style="list-style-type: none"> <li>-Orders need to be placed on the supplier's website</li> <li>-Compiling an order consists of a list of ingredients and a corresponding quantity for each ingredient in that list</li> </ul>
The system shall store a sales graph, and allow the updating/altering of this sales graph	<ul style="list-style-type: none"> <li>-Using the sales data received from the FOH team, the management team keeps a yearly sales graph consisting of the following data: <ul style="list-style-type: none"> <li>--the total number of tables and covers booked last year</li> <li>--the average number of tables and covers booked for a given day of the week</li> </ul> </li> </ul>
The system shall store information regarding popular dishes and total takings	<ul style="list-style-type: none"> <li>-Using the sales data received from the FOH team, the management team is able to ascertain which dishes are the most popular (a dish is considered to be popular if it is above a particular rank (when all the dishes are ranked in order of total number of orders, or total revenue generated), or if it exceeds a particular threshold (in regards to total number of orders or total revenue generated)</li> <li>-Information regarding total takings for the following timeframes are stored: daily, weekly, monthly and yearly</li> </ul>
The system shall provide sales data upon request in order to facilitate predictions of future bookings and future demand for ingredients	<ul style="list-style-type: none"> <li>-Using the data corresponding to the sales graph, popular dishes and total takings, sales data will be produced upon request</li> <li>-This data will facilitate predictions of future bookings and future demand for ingredients</li> </ul>

### Initial Requirements Gathering

Requirement	Source (Case Study)
Allow the ordering of produce	Management

Requirement	Source (Case Study)
Ensure that kitchen have everything they need	Management
Ensure that FOH have everything they need	Management
Allow the tracking of sales	Management
Allow the tracking of bookings	Management
Only allow access to admin staff, manager and sommelier	Management
Allow the tracking of all sales	Management -> Tracking
Provide functionality for receiving sales data from FOH	Management -> Tracking
Allow the tracking of popular dishes (with FOH sales data)	Management -> Tracking
Allow the tracking of takings (with FOH sales data)	Management -> Tracking
Provide functionality to predict future bookings (with sales data)	Management -> Tracking
Provide functionality to predict how much stock to order for the kitchen	Management -> Tracking
Provide a sales graph	Management -> Tracking
Allow the updating of the sales graph	Management -> Tracking
Allow the tracking of staffing	Management -> Tracking
Store information regarding which staff member(s) is on holiday currently	Management -> Tracking
Provide functionality for planning the number of covers per half hour (with staffing data)	Management -> Tracking
Provide functionality for planning the maximum dining capacity (with staffing data)	Management -> Tracking
Allow access to external payroll and HR systems	Management -> Tracking
Allow the reviewing of a menu sent from the kitchen/Chef	Management -> Menu Review and Costing
Provide functionality for adding descriptions to dishes in the menu	Management -> Menu Review and Costing
Provide functionality for adding prices to dishes in the menu	Management -> Menu Review and Costing
Provide functionality for calculating the appropriate price according to a percentage/multiplier	Management -> Menu Review and Costing
Allow the changing of the percentage/multiplier	Management -> Menu Review and Costing
Provide functionality for the clear labelling of all allergens in the dish	Management -> Menu Review and Costing
Allow the sommelier to review a menu sent from the kitchen/Chef	Management -> Menu Review and Costing
Allow the sommelier to add suggested wines to dishes in the menu	Management -> Menu Review and Costing
Allow the tracking of wines in the cellar	Management -> Menu Review and Costing

Requirement	Source (Case Study)
Provide functionality to determine when a wine is in need of ordering	Management -> Menu Review and Costing
Provide functionality to determine which wine(s) is in need of ordering	Management -> Menu Review and Costing
Provide functionality to determine how much of each item to order (with the upcoming week's menu, sales graph (aka plan chart) and a conversation with Chef)	Management -> Ordering
Allow the placing of an order on the supplier's website	Management -> Ordering
Allow order details to be sent to the kitchen (kitchen will check the order and track what they have)	Management -> Ordering