# The Kitchen Heaven Project

The kitchen Heaven is a new project. His purpose is to create and manage restaurant and their menu. The current document presents all notions and definitions which will be used to implement the project.

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## Definitions

### Restaurant

A restaurant is represented in the system with the following informations :

* Name : the name of the restaurant
* BusinessIdentifier : The unique identifier of the company which run the restaurant (ex : SIRET number in France). Two restaurants can have the same name in different location, they are each identified by their own BusinessIdentifier.
* Address : first line of the adresse
* Address Complement : any complement of the adress
* City Code : the code of the city
* City Name : the city’s name
* Manager : the people who manage the restaurant

### Meal

The menu of a restaurant is composed with a list of meals selected by a restaurant. These meals are proposed and chosen from an external API : the meal db (<http://themealdb.com/api.php>)

The external API is described further in this document, however there are the data which characterize a meal and will be used in the project :

* Id : id of the meal from themealdb API
* Name : Name of the meal
* Category : the category of the meal.

**N.B** : The restaurants’ categories will be the sum of all the categories of the proposed meals

* Area : Area of the meal
* Instructions : a full text instructions given in order to prepare the meal
* Image : Image of the meal
* Ingredients : list of twenty ingredient and their quantity needed in the recipe.

**N.B** : Ingredients are listed strIngredient1 to strIngredient20 and quantity strMeasure1 to strMeasure20

## Objectives

The first version of the Kitchen Heaven wil contains two distinguished components :

### Framework

A .net assembly to request the meal db API and interact with the database

* + Database
    - Validate and insert data for restaurant and menu
    - Retrieve details for restaurant and menu
    - Validate and update data for restaurant and menu
  + TheMealDbApi
    - Get filters value (area, ingredients, category)
    - Get filtered meals by name
    - Get filtered meals by ingredients criteria
    - Get filtered meals by area criteria
    - Get filtered meals by category criteria
    - Get Meal Details

### Service

A Rest API, which can be call by any frontend which will use the service

All the system will allow to :

1. Search Restaurants / list all existing restaurants
2. Create a new restaurant / Update Restaurant data
3. Search meals from themealdb API / Display meals details
4. Add meals to a restaurant’s menu
5. Display restaurants’s menu / display meals details

## External API

To propose meals for restaurants declared in The Kitchen Heaven, we use an external API : [www.themealdb.com/api/](http://www.themealdb.com/api/).

TheMealDb is a database of meals from across the world and the API offers many way to a restaurateur to create menus. The current section describes TheMealdDB API and methods which will be used in the Kitchen Heaven project to help new or experimented restaurateur to compose a menu.

N.B : The use of the api and needed json samples are available in the project TheMealDb\_API in 1\_Specifications folder

### Area thematic meals

Menu can be themed an a specific Nationality.

Get area list (<www.themealdb.com/api/json/v1/1/list.php?a=list>)

The API will return a json message containing the list of areas’ name manage by themealdb API.

Filter meal by area (<https://www.themealdb.com/api/json/v1/1/filter.php?a=Irish>)

The name of the area must be specified in the request with a parameter named « a ».

The API will return a json message containing the list of meals corresponding to the specified area name. Each meal is summarily described by his name, his thumbmail and his id.

#### Additional Informations

The filter API won’t return any result in case of an empty parameter or if the name doesn’t correspond to any area available in themealdb.

Although the API is the same to filter meals by area, category and ingredient, the different parameters cannot be added in the same request.

<https://www.themealdb.com/api/json/v1/1/filter.php?a=Irish&c=starter> will not return neither Irish starter meals nor Irish meals and starter meals in the same response.

### Category thematic meals

Menu can also be themed an a specific category of meals, such as Pasta or seafood

#### Get category list

There are two way to retrieve categories manage by TheMealDb API. Both methods offer different advantages and will be used :

* [www.themealdb.com/api/json/v1/1/list.php?c=list](http://www.themealdb.com/api/json/v1/1/list.php?c=list)

This API return a json containing the list of categories’ name. Using this API is usefull for users who are used to work with food.

* [www.themealdb.com/api/json/v1/1/categories.php](https://www.themealdb.com/api/json/v1/1/categories.php)

This API return a more complete json. Returned categories are described with a thulbmail and a description in addition of the name. This is usefull for all new comers in restoration who need to apprehend notions.

Filter meal by category (<https://www.themealdb.com/api/json/v1/1/filter.php?c=seafood>)

The name of the area must be specified in the request with a parameter named « c ».

The API will return a json message containing the list of meals corresponding to the specified categories name. Each meal is summarily described by his name, his thumbmail and his id.

#### Additional Informations

The filter API won’t return any result in case of an empty parameter or if the name doesn’t correspond to any area available in themealdb.

Although the API is the same to filter meals by area, category and ingredient, the different parameters cannot be added in the same request.

<https://www.themealdb.com/api/json/v1/1/filter.php?a=Irish&c=starter> will not return neither Irish starter meals nor Irish meals and starter meals in the same response.

### Ingredient Thematic meals

A menu can contain meals which are declination of a same ingredient.

Get ingredients list ([www.themealdb.com/api/json/v1/1/list.php?i=list](http://www.themealdb.com/api/json/v1/1/list.php?i=list))

The API will return a json message containing the list of ingredients manage by themealdb. Each ingredient is described by his name and a description.

Filter meal by ingredients (<https://www.themealdb.com/api/json/v1/1/filter.php?i=Chicken>)

The name of the ingredient must be specified in the request with a parameter named « i ».

The API will return a json message containing the list of meals corresponding to the specified area name. Each meal is summarily described by his name, his thumbmail and his id.

#### Additional Informations

If the parameters is specified empty, The API will return a a list of meals, but it won’t contain all meals.

Space in ingredient name should be replace by the character « \_ »

Although the API is the same to filter meals by area, category and ingredient, the different parameters cannot be added in the same request.

<https://www.themealdb.com/api/json/v1/1/filter.php?a=Irish&c=starter> will not return neither Irish starter meals nor Irish meals and starter meals in the same response.

### Get Meal details

Get Detail By Id ([themealdb.com/api/json/v1/1/lookup.php?i=52772](https://www.themealdb.com/api/json/v1/1/lookup.php?i=52772))

In previous section, different methods of finding a dish had been described. But with those, retrived meals’ information are quite incomplete. To give restaurateur more informations and let them choose, detailled should be retrieve for each meal.

This API will return a json containing a fully descibed meals. Needed details are described in the section « Definition »

### Free Search Meal

There are at last two approches to let restaurateurs make their menus freelier.

Search meal by first letter (<https://www.themealdb.com/api/json/v1/1/search.php?f=f>)

The meal’s first letter must be specified in the request with a parameter named « f ».

The API will return a json message containing the list of meals which name starts with the parameter. Each meal is fully detailled.

Search meal by name (<https://www.themealdb.com/api/json/v1/1/search.php?s=chocolat>)

The API will return a json message containing the list of meals which name contains.

Each meal is fully detailled.

**N.B** : the parameter is inclusive. The search with « chocol » will return all meals included by the search with « chocolate »

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