French Jeopardy Game – API Specifications

## Purpose

To describe how to develop the APIs for the French Jeopardy game, specifically for the Categories and the Questions/Answers used to play the game.

## API Description

#### Categories

The French Jeopardy game Category API returns a list of categories stored in a cloud hosted SQL database. Attributes include Category Name (EN) and Category Name (FR) and can reference an array of relevant questions. Additionally, it provides the ability to add, update and remove items (indirectly) from the database.

Questions (includes answers)

The French Jeopardy game Questions API returns a list of questions stored in a cloud hosted SQL database. Attributes include Question (EN), Question (FR), Answer (EN), Answer (FR), their relevant Category and so on. Additionally, it provides the ability to add, update and remove items (indirectly) from the database.

## URI Endpoints

#### Dev

* (Local) [https://localhost:3306/api/{categories](https://localhost:3306/api/%7bcategories)}
* (Local) [https://localhost:3306/api/{questions](https://localhost:3306/api/%7bquestions)}
* (Cloud) <https://jeopardyappservice.azurewebsites.net>

#### QA

* TBD…

#### Staging

* TBD…

#### Production

* TBD…

## RESTful Routing

### General Behaviours

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Route** | **GET** | **POST** | **PUT** | **DELETE** |
| /categories | Get list of Categories | Creates new Category | Update batch | *Error* |
| /categories/12 | Get the Category that corresponds to the ID provided | *Error* | Update Category corresponding to the ID provided | *Error* |
| /questions | Get list of Questions | Creates new Question | Update batch | *Error* |
| /questions/13 | Get the Question that corresponds to the ID provided | *Error* | Update Question corresponding to the ID provided | Deletes the Question corresponding to the ID provided |

### Standard Request Header

|  |  |
| --- | --- |
| **Key** | **Value** |
| **Authorization** |  |
| **Date** | today’s date |
| **Accept** | application/json, ~~text/xml~~ |
| **X-Version** | 1.0 |
| **Accept-Encoding** | Gzip, Deflate |
| **Accept-Language** | “en” or “fr” (default to “en” if not specified) |
| **Accept-Charset** | UTF-8 |
| **Content-Type** | Mime type of request body (PUT/POST/PATCH) |
| **Prefer** | “minimal“ or “representation“ |
| **If-Match, If-None-Match, If-Range** | ETag number from previous request |

### Standard Response Header

|  |  |
| --- | --- |
| **Key** | **Value** |
| **Date** | today’s date |
| **Content-Type** | application/json |
| **Content-Encoding** | Gzip, Deflate (if result is returned compressed) |
| **Content-Length** | Response size in Kb |
| **Content-Language** | “en” or “fr” (as specified in the request, default to “en” if not specified in the request) |
| **Preferred-Applied** | “minimal“ or “representation“ (if specified in request) |
| **api-version-supported** | 1.0 |
| **api-version-deprecated** | (leave empty if not applicable) |
| **ETag** | Generated ETag number |
| **Add following if result is a list of objects** | |
| **X-TotalCount** | Number of records returned |
| **X-NextPage** | /categories?page=n+1 |
| **X-PrevPage** | /categories?page=n-1 |

## HTTP GET

#### Categories

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| Get() | None -> return all records | GET /categories | 200 OK | List of all Jeopardy Categories in JSON format. |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Object not found, please check request” |
| Get(Id) | ?id=n (n = #)  Alternative:  ?queryString | GET /categories/{id}  Alternative:  /categories/{queryString} | 200 OK | Return the single category corresponding to ID |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Object not found, please check request” |
| Get(categoryName\_en) | ?name=categoryName\_en | GET /categories/{name} | 200 OK | Return the single category corresponding to ID |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Object not found, please check request” |

#### Questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| Get() | None -> return all records | GET /questions | 200 OK | List of all Jeopardy Questions in JSON format. |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Object not found, please check request” |
| Get(Id) | ?id=n (n = #)  Alternative:  ?queryString | GET /questions/{id}  Alternative:  /questions/{queryString} | 200 OK | Return the single question corresponding to ID |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Object not found, please check request” |
| Get(question\_en) | ?name=question\_en | GET /questions/{name} | 200 OK | Return the single category corresponding to ID |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Object not found, please check request” |
| GetRandom() |  | GetRandom/questions | 200 OK | Returns a randomized list of questions (to populate board) |
| 400 Bad Request | Error with info |
| 404 Not Found | Error |

## HTTP POST

#### Categories

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| /categories  POST | n/a | {Category object} | 201 Created | Returns location of new resource |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Item not found, please check request” |
| 406 Not Acceptable | Error with info  Message: “API does not accept the format requested” |
| 408 Request Timeout | Error with timeout info  Message: “Information not available, please try later” |
| 409 Conflict | Error with info  Message: “Object already exists.” |
| 422 Unprocessable Entity | Error with info  Array of errors using Error Model (e.g. invalid format, etc.) |
| 500 Internal Server Error | Error with info  Message: “API is experiencing technical difficulties” |

#### Questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| /questions  POST | n/a | {Questions object} | 201 Created | Returns location of new resource |
| 400 Bad Request | Error with info |
| 404 Not Found | Error with info  Message: “Item not found, please check request” |
| 406 Not Acceptable | Error with info  Message: “API does not accept the format requested” |
| 408 Request Timeout | Error with timeout info  Message: “Information not available, please try later” |
| 409 Conflict | Error with info  Message: “Object already exists.” |
| 422 Unprocessable Entity | Error with info  Array of errors using Error Model (e.g. invalid format, etc.) |
| 500 Internal Server Error | Error with info  Message: “API is experiencing technical difficulties” |

## HTTP PUT

#### Categories

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| /categories(id)  PUT | n/a | {Category object} | 200 OK | Message: “Request successful, item updated.” |
| 400 Bad Request | Error with info  Message: “Not allowed or request not accepted” |
| 404 Not Found | Error with info  Message: “Item not found, please check request” |
| 406 Not Acceptable | Error with info  Message: “API does not accept the format requested” |
| 408 Request Timeout | Error with timeout info  Message: “Information not available, please try later” |
| 422 Unprocessable Entity | Error with info  Array of errors using Error Model (e.g. invalid format, etc.) |
| 500 Internal Server Error | Error with info  Message: “API is experiencing technical difficulties” |

#### Questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| /questions(id)  PUT | n/a | {Category object} | 200 OK | Message: “Request successful, item updated.” |
| 400 Bad Request | Error with info  Message: “Not allowed or request not accepted” |
| 404 Not Found | Error with info  Message: “Item not found, please check request” |
| 406 Not Acceptable | Error with info  Message: “API does not accept the format requested” |
| 408 Request Timeout | Error with timeout info  Message: “Information not available, please try later” |
| 422 Unprocessable Entity | Error with info  Array of errors using Error Model (e.g. invalid format, etc.) |
| 500 Internal Server Error | Error with info  Message: “API is experiencing technical difficulties” |

## HTTP DELETE

#### Categories

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| Delete(categoryId) | ?id=n (n = #) | n/a | 200 OK | Message: “Request successful, item updated.” |
| 204 No Content | No response body |
| 400 Bad Request | Error with info  Message: “Not allowed or request not accepted” |
| 404 Not Found | Error with info  Message: “Database not found, please check request” |
| 406 Not Acceptable | Error with info  Message: “API does not accept the format requested” |
| 408 Request Timeout | Error with timeout info  Message: “Information not available, please try later” |
| 500 Internal Server Error | Error with info  Message: “API is experiencing technical difficulties” |

#### Questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Query Params** | **Request Body** | **Response Status Code** | **Response Body (JSON format)** |
| Delete(questionId) | ?id=n (n = #) | n/a | 200 OK | Message: “Request successful, item updated.” |
| 204 No Content | No response body |
| 400 Bad Request | Error with info  Message: “Not allowed or request not accepted” |
| 404 Not Found | Error with info  Message: “Database not found, please check request” |
| 406 Not Acceptable | Error with info  Message: “API does not accept the format requested” |
| 408 Request Timeout | Error with timeout info  Message: “Information not available, please try later” |
| 500 Internal Server Error | Error with info  Message: “API is experiencing technical difficulties” |

# Models

### Categories: Object

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Display Name** | **Description** |
| id | Integer | Identifier | Unique identifier for a category. |
| categoryName\_En | String (varchar) | Category Name (EN) | The English name of a category. |
| categoryName\_Fr | String (varchar) | Category Name (FR) | The French name of a category. |

### Questions: Object

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Display Name** | **Description** |
| Id | Integer | Identifier | Unique identifier for a question. |
| question\_En | String (varchar) | Question (EN) | The English translation of a question. |
| question\_Fr | String (varchar) | Question (FR) | The French translation of a question. |
| answer\_en | String (varchar) | Answer (EN) | The English translation of an answer. |
| answer\_fr | String (varchar) | Answer (FR) | The French translation of an answer. |
| points | Integer | Points | Value awarded to players for correct responses. |
| timeLimit | Integer | Time Limit | A fixed time interval to answer the question before expiring. |
| hint | String (varchar) | Hint | An optional prompt to assist players in answering the question correctly. |
| category\_id | Integer | Category | Foreign key of the Category for which the question belongs. |

# Error Handling

### ErrorResponse: Object

|  |  |  |  |
| --- | --- | --- | --- |
| **Property** | **Type** | **Required** | **Description** |
| Error | Error | Yes | The error object. |

### Error: Object

|  |  |  |  |
| --- | --- | --- | --- |
| **Property** | **Type** | **Required** | **Description** |
| code | String | Yes | One of a server-defined set of error codes. |
| message | String | Yes | A human-readable representation of the error. |
| target | String |  | The target of the error. |
| details | Error[] |  | An array of details about specific errors that led to this reported error. |
| innerError | InnerError |  | An object containing more specific information than the current object about the error. |

### InnerError: Object

|  |  |  |  |
| --- | --- | --- | --- |
| **Property** | **Type** | **Required** | **Description** |
| code | String |  | A more specific error code than was provided by the containing error. |
| innerError | InnerError |  | An object containing more specific information than the current object about the error. |