Assignment 1: Design Common HTTP Status Codes for Ecommerce Website

As an architect, you are tasked with designing common HTTP status codes for an ecommerce website's REST API. The status codes should be used to provide information about the success or failure of a request made to the API. Your task is to design the following status codes along with a description and example scenario where each status code can be used.

# Solution:

* 200 OK - The request has succeeded
* Example: GET request to retrieve a product's details returns a 200 OK status code with the requested details.
* 201 Created - The request has been fulfilled, and a new resource has been created
* Example: POST request to create a new order returns a 201 Created status code with the newly created order details.
* 204 No Content - The request has been successfully processed, but there is no response body
* Example: DELETE request to remove a product from the cart returns a 204 No Content status code as there is no response body.
* 400 Bad Request - The request was invalid or cannot be served.
* Example: GET request with invalid parameters returns a 400 Bad Request status code with an error message explaining the issue.
* 401 Unauthorized - The client is not authenticated to access the requested resource.
* Example: GET request to access a user's order history without authentication returns a 401 Unauthorized status code.
* 403 Forbidden - The client is authenticated but not authorized to access the requested resource.
* Example: GET request to access another user's order history returns a 403 Forbidden status code.
* 404 Not Found - The requested resource is not found.
* Example: GET request to retrieve details of a non-existent product returns a 404 Not Found status code.
* 409 Conflict - The request conflicts with the current state of the resource.
* Example: POST request to create a new product with the same name as an existing product returns a 409 Conflict status code.
* 500 Internal Server Error - The server encountered an unexpected condition that prevented it from fulfilling the request.
* Example: POST request to create a new order fails due to an internal server error, and the server returns a 500 Internal Server Error status code.
* 503 Service Unavailable - The server is currently unable to handle the request.
* Example: GET request to retrieve a product's details fails due to server overload, and the server returns a 503 Service Unavailable status code.