Gigi Home Test Documentation

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**Set Up Project**

1. Run SQL Script (gigi\_db\_script.sql) located in the db folder in mySQL to create the database with seed data.
2. Open the Gigi\_Home\_Test in VS Code
3. Go to .env.development file and change the variables DB\_USER and DB\_PASSWORD to your respective user and password in mySQL.
4. Run command npm install to install the necessary modules.
5. Run command in Gigi\_Home\_Test root folder: npm run start-dev to start the server.
6. Launch Postman app to start testing the APIs listed below.

**Routing Endpoints Summary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Path | Function | Request Body/ Query Params | Response |
| GET | /api/product/:id | Get single product by id | NIL | Success  Status code: 200 OK  Condition  Content:  {          "id": 20,          "name": "slipper",          "description": "a comfortable slip on shoe that is worn indoors.",          "price": 5,          "image": "slippers.jpg",          "sku": "S5001",          "category": "footwear"      }  Error  Status code: 400 Bad Request  Condition: Invalid id format  Content:  {      "id": "Invalid product id format."  }  Status code: 500  Condition: Internal server error  Content: NIL |
| POST | /api/product | Insert single product | Body Schema:  {      "name": "slipper",      "description": "a comfortable slip-on shoe that is worn indoors.",      "price": 5.0,      "image": "slippers.jpg",      "sku": "S5001",      "category": "footwear"  } | Success  Status code: 201 Created  Condition: Returns inserted id.  Content:  {      "productID": 20  }  Error  Status code: 400 Bad Request  Condition: Invalid field(s) input  Content:  {  "name": "Only alphanumeric. Length must be  between 1 and 255.",      "price": "Invalid price format.",  "sku": "Only alphanumeric. Length must be  between 1 and 45.",  "category": "Only alphabets. Length must be  between 1 and 45."  }  Status code: 409 Conflict  Condition: Duplicate sku entry in system  Content:  {      "sku": "Duplicate entry detected"  }  Status code: 500  Condition: Internal server error  Content: NIL |
| GET | /api/product | Get a list of product   * Filter: category, price * Sort: price * Pagination | Query String Parameters:   1. ***page [optional]***  * Datatype: Integer * Accepts: >=0 * Purpose: indicate the page number to access, to be used with ***rows,*** indicate0 to skip pagination  1. ***rows [optional]***  * Datatype: Integer * Accepts: >=0 * Purpose: indicate the records per page to access, to be used with ***page,*** indicate0 to skip pagination  1. ***category [optional]***  * Datatype: String * Accepts: alphabets, spaces and/or empty string ‘’ * Purpose: filter by specific category, leave empty if filter not required  1. ***sortPriceHighToLow [optional]***  * Datatype: Integer * Accepts: -1, 0, 1 * Purpose: Sort prices by low-high (-1) or high-low (1), otherwise natural order (0)  1. ***priceBelow [optional]***  * Datatype: Integer * Accepts: values >= 0 * Purpose: Get products with prices <= ***priceBelow***. Leave empty or 0 to indicate no filter. | Success  Status code: 200 OK  Condition: Returns list of products with optional conditions to filter by category and/or price, sort by price, with pagination to reduce server overhead and improve response time.  Content:  Retrieval based on following query string params  page:1, rows:3, category: ‘’, sortPriceHighToLow:1, priceBelow:50  "results": [          {              "id": 1,              "name": "jeans",              "description": "hard-wearing casual  trousers made of denim or  other cotton fabric",              "price": 50,              "image": "jeans.jpg",              "sku": "J1001",              "category": "bottoms"          },          {              "id": 2,              "name": "scarf",              "description": "a length or square of  fabric worn around  the neck or head",              "price": 30,              "image": "scarf.jpg",              "sku": "S1001",              "category": "miscellaneous"          },          {              "id": 7,              "name": "blouse",              "description": "a woman's upper garment  resembling a shirt,  typically with a collar,  buttons, and sleeves",              "price": 25,              "image": "blouse.jpg",              "sku": "B1001",              "category": "tops"          }      ],      "pageCount": {          "totalPages": 3      }  Error  Status code: 400 Bad Request  Condition: Invalid field(s) input  Content:  {      "page": "Invalid page input, only values >=0 allowed.",      "rows": "Invalid rows input, only values >=0 allowed.",      "category": "Only empty/alphabets allowed.",  "sortPriceHighToLow": "Invalid sortPriceHighToLow  input, only -1, 0, 1 allowed.",  "priceBelow": "Invalid priceBelow input, only  integer values >=0 allowed. Input 0 to omit  price filter."  }  Status code: 500  Condition: Internal server error  Content: NIL |

Rooms for improvements:

* Use sequelize module to integrate sql into objects
* Multiple categories for multiple products M-M relationship
* JWT token implementation for inserting product
* Implement validation middleware using JOI
* Implement docker style startup of system

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