

## **1.What went well?**

### **Database Structure and Design**

Three tables were defined and built using a schema that provided an effective functional relationship for an application being developed to store products, suppliers, and inventory with an easily understood and efficient query strategy. The creation of three separate tables allowed for a cleaner functional relationship among the tables with less duplicate data and enabled the ability for efficient and quick queries.

Data integrity was maintained through proper foreign key usage to ensure that no records would become orphaned.

### **Code Structure and Organization**

The MVC design pattern has allowed us to separate concerns between model/, route/, and config/ directories resulting in a codebase that is easy to navigate and easily maintainable.

### **API Design**

I developed an API that conforms to the REST principles. As such, the API behaves in a predictable and user-friendly manner.

Using the correct HTTP Status Codes (200, 201, 404, 400, and 500) has made troubleshooting the application easier.

A common format for the JSON response data will facilitate integration with third party applications.

## **2.What could you have done differently?**

Unit testing would have been appropriate for the Product model, with integration testing of the API endpoints using Jest or Mocha. Manual methods of testing, including using curl commands from the command line and CLI testing, will produce less reliable results than automated tests and require much more time for QA processes.

Console error statements only provide basic information about technical problems, and therefore do not adequately inform development teams of what went wrong or allow them to investigate potential causes.

## **3.Screenshots of your database schema.**

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### **Table: inventory**

#### **Columns:**

<b>inventory_id</b>	int AI PK
<b>product_id</b>	int
<b>supplier_id</b>	int
<b>quantity</b>	int
<b>last_updated</b>	timestamp

### **Table: product**

#### **Columns:**

<b>product_id</b>	int AI PK
<b>product_name</b>	varchar(100)
<b>description</b>	text
<b>price</b>	decimal(10,2)
<b>created_at</b>	timestamp

### **Table: supplier**

#### **Columns:**

<b>supplier_id</b>	int AI PK
<b>supplier_name</b>	varchar(100)
<b>contact_info</b>	varchar(255)
<b>created_at</b>	timestamp