### **Overview:-**

The Vendor Management System API is designed to facilitate the management of vendors, tracking of purchase orders, and evaluation of vendor performance metrics. This documentation provides detailed information about the endpoints, request parameters, and response formats for integrating with the API.

### **Authentication:-**

Authentication is required to access the API endpoints. Currently, the API supports JWT token-based authentication. Clients need to obtain a JWT token by authenticating with the system using their credentials. This token should then be included in the Authorization header of subsequent requests.

### **Obtaining JWT Token:-**

To obtain a JWT token, clients need to send a POST request to the authentication endpoint with their credentials.

#### URL: -

For register user: <a href="http://localhost:8001/api/register/">http://localhost:8001/api/register/</a>

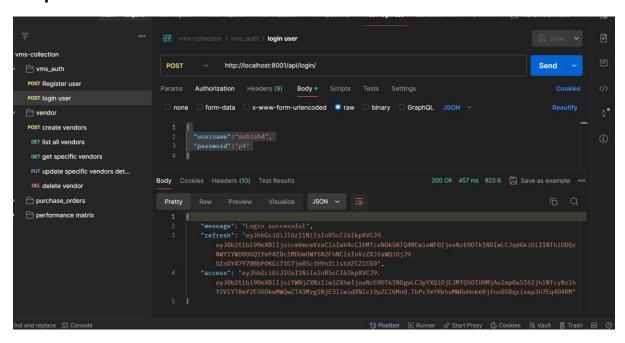
For login user and get token from response: http://localhost:8001/api/login/

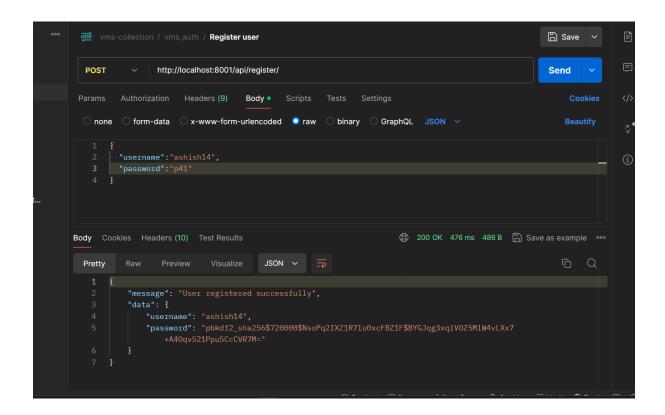
### **Request Parameters:**

username (string, required): User's username.

password (string, required): User's password.

#### Response:-





# **Endpoints: -**

# 1. Vendor Profile Management

### Model Design:

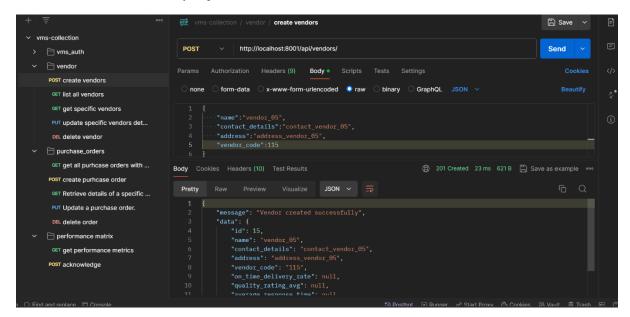
A model is designed to store vendor information, comprising the following fields:

- Name
- Contact details
- Address
- Unique vendor code and
- others

### API Endpoints:

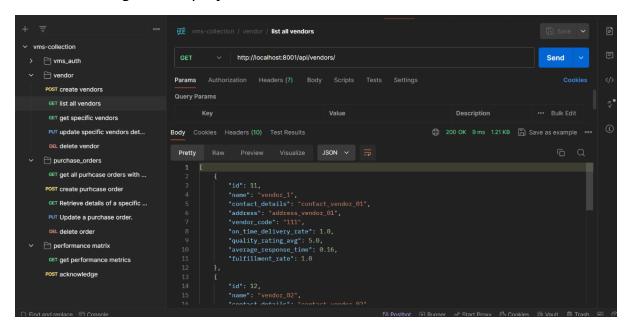
### POST URL :- /api/vendors/

Creates a new vendor profile.



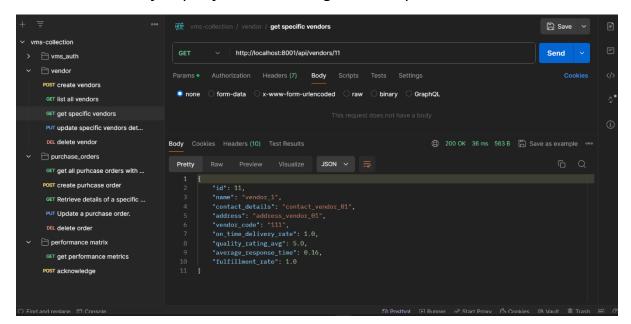
GET URL :- /api/vendors/

Lists all existing vendor profiles.



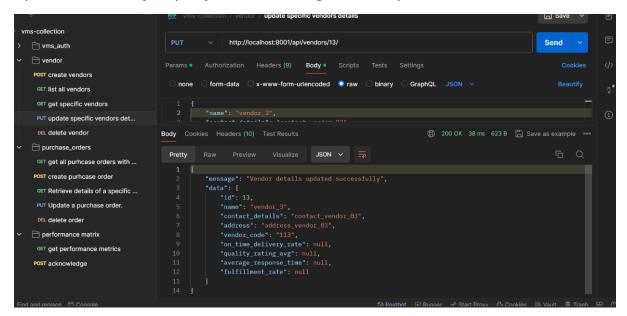
### GET URL :- /api/vendors/{vendor\_id}/

Retrieves details of a specific vendor using their unique ID.



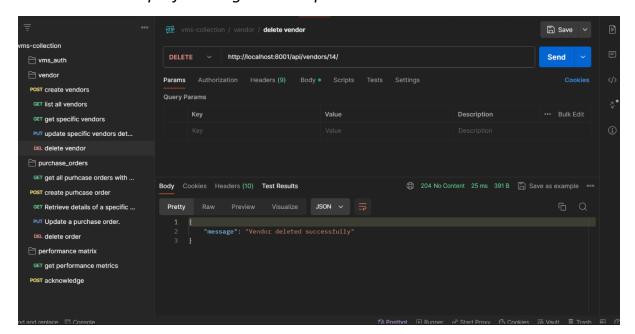
PUT URL :- /api/vendors/{vendor\_id}/

Updates details of a specific vendor using their unique ID.



### DELETE URL :- /api/vendors/{vendor\_id}/

Deletes a vendor profile using their unique ID.



### 2. Purchase Order Tracking

### Model Design:

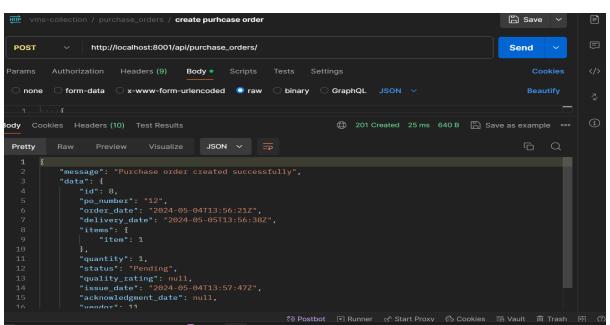
A model is designed to track purchase orders, including the following fields:

- Purchase Order (PO) number
- Vendor reference
- Order date
- Items
- Quantity
- Status
- Delivered\_on (added one extra to tract the delivery time)
- Other

### **API Endpoints:**

POST URL :- /api/purchase\_orders/

Creates a new purchase order.



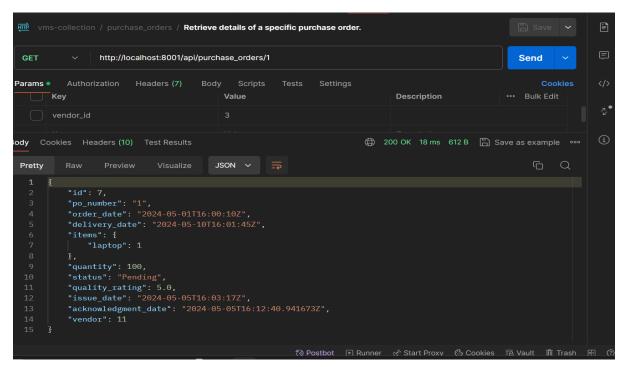
GET URL :- /api/purchase\_orders/

Lists all purchase orders, with an option to filter by vendor.

```
vms-collection / purchase_orders / get all purhcase orders with filter vendor
                                                                                               Save ∨
              http://localhost:8001/api/purchase_orders/?vendor_id=11
                                                                  (f) 200 OK 9 ms 856 B Save as example ••••
                                  JSON V =
Pretty
               Preview
                         Visualize
             "po_number": "1",
"order_date": "2024-05-01T16:00:10Z",
             "delivery_date": "2024-05-10T16:01:45Z",
                "laptop": 1
            },
            "status": "Pending",
            "quality_rating": 5.0,
             "acknowledgment_date": "2024-05-05T16:12:40.941673Z",
```

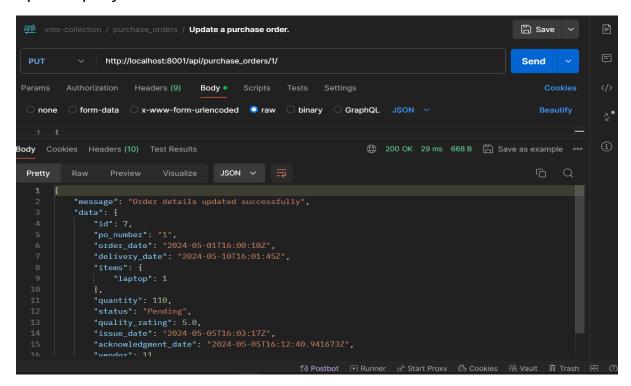
GET URL :- /api/purchase orders/{po id}/

Retrieves details of a specific purchase order using its unique ID.



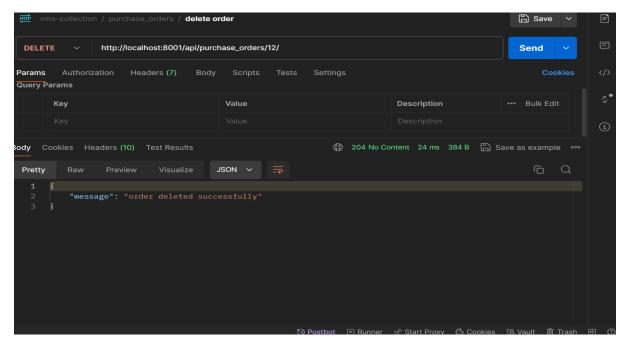
PUT URL :- /api/purchase\_orders/{po\_id}/

Update specific order details



DELETE URL :- /api/purchase\_orders/{po\_id}/

Deletes a purchase order using its unique ID.



# 3. Vendor Performance Evaluation

#### **Metrics:**

- On-Time Delivery Rate: Percentage of orders delivered by the promised date.
- Quality Rating: Average of quality ratings given to a vendor's purchase orders.
- Response Time: Average time taken by a vendor to acknowledge or respond to purchase orders.
- Fulfillment Rate: Percentage of purchase orders fulfilled without issues.

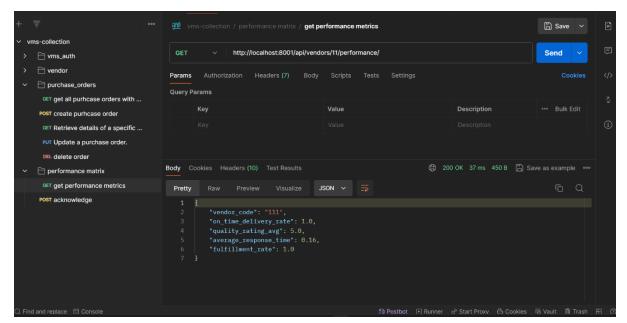
#### Model Design:

Fields are added to the vendor model to store these performance metrics.

#### **API Endpoint:**

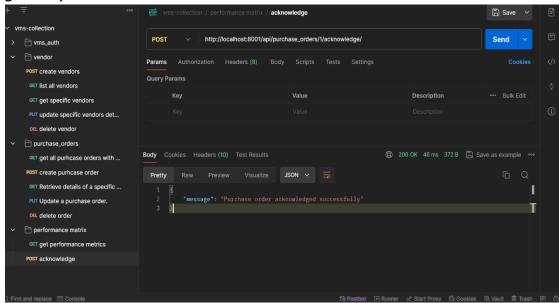
GET URL :- T /api/vendors/{vendor\_id}/performance:

Retrieves a vendor's performance metrics using their unique ID.



POST URL :- purchase\_orders/<int:po\_id>/acknowledge/:

Give the ack off particular order when they rich to the vendor. By sending the ack the response time is update each time when the ack is given by the vendor.



### Conclusion:-

This concludes the documentation for the Vendor Management System API. For any further assistance or inquiries, please connect with me.

Thanks.

Regards,

Ashish Auti...