Question
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# How to query data from DocDB through python based on the value in nested json data?

hello, I had build a DocDB referring the code from
here: https://community.intersystems.com/post/how-can-i-create-properties-docd...

Here are the structure of the json Documents I have added in my database called 'Orders'.

```
Doc1 = {'Client': 'Stanford health center', 'Country': 'US', 'orderID': 'a0001', 'Dat
e': '2020-01-01',
        'OrderContent': [{'productID': '001', 'ProductName': 'flu test', 'Qty': 100,
'cost': 500},
                         {'productID': '002', 'ProductName': 'EV test', 'Qty': 500, '
cost': 1000}]}

Doc2 = {'Client': 'watson clinic', 'Country': 'US', 'orderID': 'a0002', 'Date': '2020
-03-01',
        'OrderContent': [{'productID': '001', 'ProductName': 'flu test', 'Qty': 200,
'cost': 1000},
                         {'productID': '003', 'ProductName': 'HPV test', 'Qty': 90, '
cost': 700}]}

Doc3 = {'Client': 'WHO', 'Country': 'FR', 'orderID': 'a0003', 'Date': '2020-01-01',
        'OrderContent': [{'productID': '004', 'ProductName': 'C_diff test', 'Qty': 10
0, 'cost': 500},
                         {'productID': '002', 'ProductName': 'EV test', 'Qty': 500, '
cost': 1000}]}
```

Like you can see, I am struggling at how to retrieve the document based on 'productID' as the key in 'OrderContent'? Currently I can retrieve data based on properties as 'Client', "Country", "orderID", "Date", but I have no idea how to setup properties like 'OrderContent', and the keys within the nested json format in order to retrieve the document.

And if I have more complex logic such as getting the document where country is 'US' and containing cost higher than 600, how can I query the data?  Hope you may help! Thank you ahead!

Following is the code that I used for retrieving the data based on property 'orderID'

```
def find_doc_by_logic(data):
    headers = {
        'Content-Type': 'application/json',
    }

    # data = '{"restriction":["orderID","a","%STARTSWITH"], "projection":["%DocumentI
d", "Client"]}'
    response = session.post('http://localhost:52773/api/docdb/v1/User/find/Orders', h
eaders=headers, data=data)
    print(response.status_code, response.reason)
```

```
    print(response.content)

# testing work, return the document contain the 'client' starting with 'c'
data = '{"restriction":["Client","c","%STARTSWITH"], "projection":["%DocumentId", "Cl
ient", "Country"]}'
find_doc_by_logic(data)
```

#Document Data Model (NoSQL) #Python #InterSystems IRIS

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**Source URL:**https://community.intersystems.com/post/how-query-data-docdb-through-python-based-value-nested-json-data