

MSSQL Basic templates

Getting tables schema and information related to that

```
SELECT
    COLUMN_NAME
FROM
    INFORMATION_SCHEMA.COLUMNS
WHERE
    TABLE_NAME = 'Products_v2'
```

Getting fields of a table ALONG with type of fields

```
SELECT
    COLUMN_NAME, DATA_TYPE
FROM
    INFORMATION_SCHEMA.COLUMNS
WHERE
    TABLE_NAME = 'Products_v3'
```

Date time filtering procedure

```
alter PROCEDURE dateTimeFiltering(
    @FromDate as datetime=null,
    @ToDate as datetime=null
)
AS
BEGIN
    SELECT *
    FROM [mqtt].[dbo].[datareadings] where CONVERT(date,[Transdate],103) between convert(date,isnull(@FromDate,[Transdate]),103)
    and convert(date,isnull(@ToDate,[Transdate]),103)
    order by [Transdate] desc;
END;
```

Execution

```
EXEC dateTimeFiltering '2021-10-29','2021-10-30';
```

DateTime Filtering and other categorical filters

```
alter PROCEDURE dateTimeFiltering(
    @FromDate as datetime=null,
    @ToDate as datetime=null,
    @deviceid as varchar(100) = null,
    @readingtype as varchar(100) = null
)
AS
BEGIN
    SELECT *
    FROM [mqtt].[dbo].[datareadings] where CONVERT(date,[Transdate],103) between convert(date,isnull(@FromDate,[Transdate]),103)
    and convert(date,isnull(@ToDate,[Transdate]),103) and (readingtype = isnull(@readingtype,readingtype))
    and (deviceid = isnull(@deviceid,deviceid))
    order by [Transdate] desc;
END;
```

Execution

```
EXEC dateTimeFiltering @FromDate='2021-10-29',
    @ToDate='2021-10-30',@deviceid='1234515',@readingtype='ukrecm';
```

Applying Categorical filters and obtaining json data as response

```
ALTER PROCEDURE [dbo].[productFiltering](
    @FromDate as datetime=null,
    @ToDate as datetime=null,
    @WebURL as varchar(300) = null,
    @ProductID as varchar(300) = null,
    @Product_name as varchar(300) = null,
    @InStock as varchar(300) = null,
    @Source as varchar(300) = null
)
AS
BEGIN
    SELECT(
        SELECT S_No,ProductID,WebURL,[Date_time ],Product_name,
            Original_price,Discounted_price,[InStock ],[Source]
        FROM [ukwebscraper].[dbo].[Products_v2] where CONVERT(date,[Date_time ],103) between convert(date,isnull(@FromDate,[Date_time ]),103)
        and convert(date,isnull(@ToDate,[Date_time ]),103)
        and (WebURL = isnull(@WebURL,WebURL))
        and (ProductID = isnull(@ProductID,ProductID))
        and (Product_name = isnull(@Product_name,Product_name))
        and ([InStock ] = isnull(@InStock,[InStock ]))
        and ([Source] = isnull(@Source,[Source]))
        order by [Date_time ] desc for JSON PATH,ROOT('Product')) as rootData
    END
```

Execution:

```
EXEC productFiltering @FromDate='2021-10-09',@ToDate='2021-10-09',@Source='Amazon';
```

Adding column in MSSQL

```
ALTER TABLE Products_v4
ADD UK_MRP_Price varchar(255) null;
```

For adding new column with primary key and autoincrement

```
ALTER TABLE datareadings_v2 add sno int NOT NULL identity(1,1) primary key;
```

Possible errors :

String or binary data would be truncated.

Reason : The length of that column is less than that of the string that is getting inserted

<https://stackoverflow.com/questions/10843567/sql-server-error-string-or-binary-data-would-be-truncated>