ASSIGNMENT 10

1. Create a SP to return data in this format:

```
{
  "directory": {
    "totalCount": 1,
    "entity": "Customer",
    "columns": [
      {
        "name": "firstName",
        "type": "string",
        "display": "First Name"
      },
      {
        "name": "middleName",
        "type": "string",
        "display": "Middle Name"
      },
      {
        "name": "lastName",
        "type": "string",
        "display": "Last Name"
      },
      {
        "name": "address",
        "type": "string",
        "display": "Address"
      },
      {
```

```json
      "name": "phone",
      "type": "string",
      "display": "Phone"
    },
    {
      "name": "sSN",
      "type": "string",
      "display": "SSN"
    },
    {
      "name": "createdDate",
      "type": "date",
      "display": "Created Date"
    },
    {
      "name": "personId",
      "type": "int",
      "display": "Person Id"
    },
    {
      "name": "name",
      "type": "string",
      "display": "Name"
    }
  ],
  "data": [
    {
      "firstName": "CHARLES",
      "middleName": "JACKSON",
      "lastName": "HOLTORF",
      "address": "120 SE OLD ARCADIA RD SHELTON,WA-98584",
```

```
      "contact": "8483482542",

      "phone": "8483482542",

      "emailAddress": "CHARLESHOLTORF@YAHOO.COM",

      "sSN": "XXX-XX-6048",

      "createdDate": "12/03/2021",

      "personId": 15702501,

      "name": "CHARLES JACKSON HOLTORF"

    }

  ]

 }

}
```

 Basically, this would return all the data related to that entity. The parameter for this SP would be

{

"entityId":"1,2" / "All" / null,

"entity":"Person",

"searchType" : "BASIC"/"Detail"

}

Basic should only return name and SSN, detail should return everything. Not only the data but columns should also be filtered accordingly.

Solution:

```sql
create or alter procedure SpPersonSel
@Json nvarchar(max)
as
begin
DECLARE @SqlQuery nvarchar(max),
        @SqlQuery1 nvarchar(max),
```

```sql
        @SqlQuery2 nvarchar(max),
        @SqlExec nvarchar(max),
        @Entity nvarchar(max),
        @EntityId nvarchar(max),
        @SearchType nvarchar(max);


CREATE TABLE #Person(
                Id INT IDENTITY(1,1),
                FirstName VARCHAR(200),
                LastName VARCHAR(200),
                [Address] VARCHAR(200),
                [Contact] VARCHAR(100),
                SSN VARCHAR(11),
                CreatedDate VARCHAR(100),
                PersonId INT,
                [Name] VARCHAR(200)
        );


SELECT @SqlQuery = '
    INSERT INTO #Person (
            FirstName,
            LastName,
            [Address],
            [Contact],
            SSN,
            CreatedDate,
```

```sql
                PersonId,
                [Name]
                )

                SELECT SUBSTRING(p.FullName, 1, CHARINDEX(" ", p.FullName) - 1) AS firstName,
                SUBSTRING(p.FullName, CHARINDEX(" ", p.FullName) + 1,
                LEN(p.FullName) - CHARINDEX(" ", p.FullName)) AS lastName, (a.Country + " " + a.City + " " + a.Street) as [address], c.[ContactValue] as [contact],
                CONCAT("xxx-xx-", SUBSTRING(SSN, 8, 4)) as sSN, a.InsertDate as createdDate, p.personId, p.FullName as [name]
                FROM Person p
                INNER JOIN [PersonAddress] pa ON p.PersonId =  pa.PersonId
                INNER JOIN [Address] a ON pa.AddressId = a.AddressId
                INNER JOIN [PersonContact] pc ON pc.PersonId = p.PersonId
                INNER JOIN [Contact] c ON c.ContactId = pc.ContactId'



SELECT
                                @SearchType = ISNULL(JSON_VALUE(@Json, '$.searchType'), 'Basic'),
                                @Entity = ISNULL(JSON_VALUE(@Json, '$.entity'), 'Person'),
                                @EntityId = ISNULL(JSON_VALUE(@Json, '$.entityId'), '');


SELECT @SqlQuery1 = '
  select (select
    (
      select
        count(*) AS value
```

```sql
        from #Person
)  as "directory.totalCount",
''' + @Entity + ''' as "directory.entity",
(
    select
        "firstName" as name,
        "string" as type,
        "First Name" as display
    for json path
) as "directory.columns[0]",


            (
    select
        "lastName" as name,
        "string" as type,
        "Last Name" as display
    for json path
) as "directory.columns[1]",
(
    select
        "address" as name,
        "string" as type,
        "Address" as display
    for json path
) as "directory.columns[2]",
(
    select
        "contact" as name,
        "string" as type,
        "Contact" as display
    for json path
```

```sql
) as "directory.columns[3]",
(
    select
        "sSN" as name,
        "string" as type,
        "SSN" as display
    for json path
) as "directory.columns[4]",
(
    select
        "createdDate" as name,
        "date" as type,
        "Created Date" as display
    for json path
) as "directory.columns[5]",
(
    select
        "personId" as name,
        "int" as type,
        "Person Id" as display
    for json path
) as "directory.columns[6]",
                (
    select
        "name" as name,
        "int" as type,
        "Name" as display
    for json path
) as "directory.columns[7]",
(
    select
```

```sql
            firstName,
            lastName,
            address,
            contact,
            sSN,
            createdDate,
            personId,

                              name
        from #Person
        for json path
    ) as "data"
        for json path, without_array_wrapper) as json;';


select @SqlQuery2 = '
select (select
    (
        select
            count(*) as value
        from #Person
    ) as "directory.totalCount",
    '" + @Entity + '" as "directory.entity",
    (
        select
            "firstName" as name,
            "string" as type,
            "First Name" as display
        for json path
    ) as "directory.columns[0]",
    (
        select
            "sSN" as name,
```

```sql
            "string" as type,
            "SSN" as display
         for json path
      ) as "directory.columns[1]",
      (
         select
            firstName,
            lastName,
            sSN
         from #Person
         for json path
      ) as "data"
         for json path, without_array_wrapper) as json;';


   if (@EntityId = 'All' OR @EntityId = '' OR @EntityId IS NULL) AND (@SearchType =
'Basic')
   begin
      select @SqlExec = @SqlQuery+ @SqlQuery2;
      --exec (@SqlExec);
   end
   else if (@EntityId = 'All' OR @EntityId = '' OR @EntityId IS NULL) AND (@SearchType =
'Detail')
   begin
      select @SqlExec = @SqlQuery + @SqlQuery1;
      --exec (@SqlExec);
   end
   else if (@EntityId <> 'All') AND (@SearchType = 'Basic')
   begin
      select @SqlExec = @SqlQuery + ' WHERE p.PersonId IN (select value from
STRING_SPLIT('' + @EntityId + '', ',')) ' + @SqlQuery2;
      ----exec (@SqlExec);
```

```sql
        end
    else if (@EntityId <> 'All') AND (@SearchType = 'Detail')
    begin
        select @SqlExec = @SqlQuery + ' where p.PersonId IN (select value from
STRING_SPLIT(''' + @EntityId + ''', '','')) ' + @SqlQuery1;




    end
            print(@SqlExec);
            exec (@SqlExec);
    --drop table #Person;
end;


exec SpPersonSel @Json = '{
    "entityId": "1,2",
    "entity": "Person",
    "searchType": "Detail"
}';
```