



GROUP 79

Phase 3

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Admin

1. Select all pending data point

```
```sql
SELECT LocName, DataType, DataValue, DateTime, Status FROM Data_Point WHERE
Status = 'Pending'
```
```

2. Selcet all pending CoA

```
```sql
SELECT UserName, B.EmailAddress, City, State, Title FROM User AS A,
City_Official AS B WHERE Status = 'Pending' AND A.EmailAddress =
B.EmailAddress
```
```

3. Update one data point

```
```sql
UPDATE Data_Point SET Status = (status) WHERE LocName = (location) AND
DateTime = (date_time)
```
```

4. Update many data point

```
```sql
UPDATE Data_Point SET Status = (status) WHERE (LocName =(keys[0]["LocName"]))
AND DateTime = (keys[0]["DateTime"])) OR (LocName = (keys[i]["LocName"])) AND
DateTime = (keys[i]["DateTime"]))
```
```

5. Change a CoA

```
```sql
UPDATE City_Official SET Status = (status) WHERE EmailAddress = (email)
```
```

City & State

1. Import cities and states into frontend

```
```sql
SELECT * FROM City_State
```
```

2. Import locations into frontend

```
```sql
SELECT DISTINCT LocationName FROM POI
```
```

3. Import datatypes into frontend

```sql

SELECT DISTINCT Type FROM Data\_Type

```

City Scientist

1. Add a new location

```sql

INSERT INTO POI (Flag, LocationName, ZipCode, City, State) VALUES (0,  
locationname, zipcode, city, state)

```

2. Add a new data point

```sql

INSERT INTO Data\_Point (DateTime, LocName, DataType, DataValue) VALUES  
(Formalized\_DateTime, locationname, datatype, value)

```

City Official

1. Show POI detail

```sql

SELECT DataType, DataValue, DateTime FROM Data\_Point WHERE LocName =  
(locname) AND DataType = (dataType) AND DataValue BETWEEN (dataValue[0]) AND  
(dataValue[1]) AND DateTime BETWEEN (Formalized\_DateTime[0]) AND  
(Formalized\_DateTime[1]) AND Status = 'Accepted' ORDER BY DateTime

```

2. Filter

```sql

SELECT \* FROM POI WHERE LocationName = (name) AND State = (state) AND City =  
(city) AND ZipCode = (zipCode) AND Flag = (flag) AND DateFlagged BETWEEN  
(Formalized\_Date[0]) AND (Formalized\_Date[1]) AND Status = 'Accepted' ORDER  
BY DateTime

```

POI Report

Generate the report by Only ONE SQL Query!!!!!!

```sql

```
SELECT * FROM
(
 SELECT COALESCE(LocName, LocationName) AS "POIlocation", MoldMin,
MoldAvg, MoldMax, AQMin, AQAvg, AQMax, (COALESCE(numofMold,0) +
COALESCE(numofAQ,0)) AS "numOfDataPoint" FROM
 (
 SELECT * FROM
 (
 SELECT LocName, LocationName, MoldMin, MoldAvg,
MoldMax,numofMold, AQMin, AQAvg, AQMax, numofAQ FROM
 (
 SELECT LocName AS 'LocationName', min(DataValue) AS
'MoldMin', avg(DataValue) AS 'MoldAvg', max(DataValue) AS 'MoldMax', count(*)
AS 'numofMold'
 FROM Data_Point
 WHERE DataType = 'Mold' AND Status = 'Accepted'
 GROUP BY LocName
) AS a
 LEFT JOIN
 (
 SELECT LocName, min(DataValue) AS 'AQMin',
avg(DataValue) AS 'AQAvg', max(DataValue) AS 'AQMax', count(*) AS 'numofAQ'
 FROM Data_Point
 WHERE DataType = 'Air Quality' AND Status =
'Accepted'
 GROUP BY LocName
) AS b
 ON a.LocationName = b.LocationName) as r1

 UNION

 SELECT * FROM
 (
 SELECT LocName, LocationName, MoldMin, MoldAvg,
MoldMax,numofMold, AQMin, AQAvg, AQMax, numofAQ FROM
 (
 SELECT LocName AS 'LocationName', min(DataValue) AS
'MoldMin', avg(DataValue) AS 'MoldAvg', max(DataValue) AS 'MoldMax', count(*)
AS 'numofMold'
 FROM Data_Point
 WHERE DataType = 'Mold' AND Status = 'Accepted'
 GROUP BY LocName
) AS c
 RIGHT JOIN
```

```

 (
 SELECT LocName, min(DataValue) AS 'AQMin',
avg(DataValue) AS 'AQAvg', max(DataValue) AS 'AQMax', count(*) AS 'numofAQ'
 FROM Data_Point
 WHERE DataType = 'Air Quality' AND Status =
'Accepted'

 GROUP BY LocName
) AS d
 ON c.LocationName = d.LocName
) as r2
) AS r3
) AS p1
JOIN
(
 SELECT LocationName, City, State, DateFlagged FROM POI
) AS p2
ON p1.POIlocation = p2.LocationName
```

```

All Users

1. Log in

```

```sql
SELECT Username, Password, Type FROM User WHERE Username = (username)
```

```

2. Register

(1) New user

```

```sql
INSERT INTO User (EmailAddress, UserName, Password, Type) VALUES (email,
name, pwd, utype)
INSERT INTO City_Official (EmailAddress, Title, City, State) VALUES (email,
title, city, state)
```

```

(2) Check whether the username exists

```

```sql
SELECT username FROM User WHERE Username = (name)
```

```

(3) Check whether the email exists

```

```sql
SELECT EmailAddress FROM User WHERE EmailAddress = (email)
```

```

(4) Delete a user

```

```sql
DELETE FROM User WHERE Username = (name)
```

```