**1. Retrieve all Transmission Line details along with associated Structures**

SELECT

tl.LINE\_ID,

tl.LINE\_NAME,

tl.NUM\_CIRCUITS,

s.STR\_NUM,

s.HEIGHT,

s.STATUS,

s.LATITUDE,

s.LONGITUDE

FROM

TRANSMISSION\_LINE tl

LEFT JOIN

STRUCTURE s

ON

tl.TL\_GUID = s.LINEID\_1;

**2. Fetch Structure Inspection details for specific Transmission Lines**

SELECT

tl.LINE\_NAME,

s.STR\_NUM,

si.INSPECTION\_DATE,

si.COMMENTS,

si.STATUS\_ID

FROM

TRANSMISSION\_LINE tl

INNER JOIN

STRUCTURE s

ON

tl.LINE\_ID = s.LINEID\_1

INNER JOIN

STRUCTUREINSPECTION si

ON

s.STR\_ID = si.STR\_ID

WHERE

tl.LINE\_NAME = 'Example Transmission Line Name';

**3. Get Switch details associated with Structures**

SELECT

s.STR\_NUM,

sw.SWITCH\_ID,

sw.SWITCH\_TYPE,

sw.IN\_SERVICE,

sw.OUT\_SERVICE,

sw.OPERATING\_VOLTAGE

FROM

STRUCTURE s

INNER JOIN

SWITCH sw

ON

s.STR\_ID = sw.STRUCTURE\_GUID

WHERE

sw.STATUS = 'Active';

**4. List Poles with their associated Grade and Inspection Details**

SELECT

p.POLE\_NUM,

p.HEIGHT AS PoleHeight,

g.OVERALL\_GRADE,

g.INSPECTION\_DATE,

g.PERCENT\_STEEL\_LOSS

FROM

POLE p

LEFT JOIN

GRADE g

ON

p.POLE\_GUID = g.POLE\_GUID

WHERE

g.OVERALL\_GRADE IS NOT NULL

ORDER BY

g.INSPECTION\_DATE DESC;

**5. Get all Switches and their Inspection Status**

SELECT

sw.SWITCH\_ID,

sw.SWITCH\_TYPE,

si.INSPECTION\_DATE,

si.COMMENTS,

si.STATUS\_ID,

is\_.STATUS AS InspectionStatus

FROM

SWITCH sw

LEFT JOIN

SWITCHINSPECTION si

ON

sw.SWITCH\_ID = si.SWITCH\_ID

LEFT JOIN

INSPECTIONSTATUS is\_

ON

si.STATUS\_ID = is\_.ID;

**6. Retrieve Work Orders and Related Structures or Switches**

SELECT

wo.WO\_NAME,

wo.DUE\_DATE,

s.STR\_NUM AS StructureNumber,

sw.SWITCH\_ID AS SwitchID,

wo.WO\_STATUS

FROM

WORKORDER wo

LEFT JOIN

STRUCTUREINSPECTION si

ON

wo.ID = si.WO\_ID

LEFT JOIN

STRUCTURE s

ON

si.STR\_ID = s.STR\_ID

LEFT JOIN

SWITCHINSPECTION swi

ON

wo.ID = swi.WO\_ID

LEFT JOIN

SWITCH sw

ON

swi.SWITCH\_ID = sw.SWITCH\_ID;

**7. Fetch Facility Relations for Structures and Switches**

SELECT

fr.STR\_ID,

s.STR\_NUM AS StructureNumber,

fr.SWITCH\_ID,

sw.SWITCH\_TYPE,

fr.ADJACENT

FROM

FACILITYRELATION fr

LEFT JOIN

STRUCTURE s

ON

fr.STR\_ID = s.STR\_ID

LEFT JOIN

SWITCH sw

ON

fr.SWITCH\_ID = sw.SWITCH\_ID;

**8. List Transmission Lines and the Stations they Connect**

SELECT

tl.LINE\_NAME,

tl.LINE\_MILEAGE,

st.STATION\_NAME,

st.CITY,

st.REGION

FROM

TRANSMISSION\_LINE tl

LEFT JOIN

FACILITYRELATION fr

ON

tl.LINE\_ID = fr.LINEID\_2

LEFT JOIN

STATION st

ON

fr.STATION\_ID = st.STATION\_ID;

**9. Inspection Summary Report for a Region**

SELECT

r.NAME AS RegionName,

COUNT(si.ID) AS TotalInspections,

COUNT(CASE WHEN si.STATUS\_ID = 'SpecificStatusID' THEN 1 END) AS SpecificStatusCount,

MIN(si.INSPECTION\_DATE) AS FirstInspection,

MAX(si.INSPECTION\_DATE) AS LastInspection

FROM

REGION r

INNER JOIN

STRUCTURE s

ON

r.CODE = s.REGION

INNER JOIN

STRUCTUREINSPECTION si

ON

s.STR\_ID = si.STR\_ID

GROUP BY

r.NAME;

**10. List All Structures with Related Poles, Switches, and Arms**

SELECT

s.STR\_NUM AS StructureNumber,

p.POLE\_NUM AS PoleNumber,

sw.SWITCH\_ID AS SwitchID,

a.ARM\_TYPE AS ArmType

FROM

STRUCTURE s

LEFT JOIN

POLE p

ON

s.STR\_ID = p.STR\_GUID

LEFT JOIN

SWITCH sw

ON

s.STR\_ID = sw.STRUCTURE\_GUID

LEFT JOIN

ARM a

ON

s.STR\_ID = a.STR\_ID;

**11. Fetch Switches with Associated Motors and Interruptors**

SELECT

sw.SWITCH\_ID,

sw.SWITCH\_TYPE,

m.MOTOR\_TYPE,

m.CATALOG\_NUMBER AS MotorCatalog,

i.INTERRUPTER\_NUM,

i.RATING AS InterruptorRating

FROM

SWITCH sw

LEFT JOIN

MOTOR m

ON

sw.SWITCH\_ID = m.SWITCH\_ID

LEFT JOIN

INTERRUPTER i

ON

sw.SWITCH\_ID = i.INTERRUPTER\_ID;

**12. Identify Structures Requiring Maintenance with Associated Comments**

SELECT

s.STR\_NUM AS StructureNumber,

s.STATUS AS StructureStatus,

s.PROGRESS\_STATUS AS ProgressStatus,

si.COMMENTS AS InspectionComments,

wo.WO\_NAME AS WorkOrderName

FROM

STRUCTURE s

INNER JOIN

STRUCTUREINSPECTION si

ON

s.STR\_ID = si.STR\_ID

LEFT JOIN

WORKORDER wo

ON

si.WO\_ID = wo.ID

WHERE

si.STATUS\_ID = 'MaintenanceRequiredStatusID';

**13. Get Details of Poles and Foundations Associated with a Specific Transmission Line**

SELECT

tl.LINE\_NAME AS TransmissionLine,

p.POLE\_NUM AS PoleNumber,

p.HEIGHT AS PoleHeight,

sf.FND\_TYPE AS FoundationType,

sf.FND\_ELEV AS FoundationElevation

FROM

TRANSMISSION\_LINE tl

INNER JOIN

STRUCTURE s

ON

tl.LINE\_ID = s.LINEID\_1

INNER JOIN

POLE p

ON

s.STR\_ID = p.STR\_GUID

LEFT JOIN

STRFOUNDATION sf

ON

s.STR\_ID = sf.STR\_ID

WHERE

tl.LINE\_NAME = 'Example Line Name';

**14. Retrieve Transmission Lines and the Regions They Cross**

SELECT

tl.LINE\_NAME AS TransmissionLineName,

r.NAME AS RegionName,

r.STATES AS StatesCovered

FROM

TRANSMISSION\_LINE tl

LEFT JOIN

REGION r

ON

tl.REGION = r.REGION;

**15. Structures and Associated Work Orders in a Specific Region**

SELECT

r.NAME AS RegionName,

s.STR\_NUM AS StructureNumber,

s.STATUS AS StructureStatus,

wo.WO\_NAME AS WorkOrderName,

wo.WO\_STATUS AS WorkOrderStatus

FROM

REGION r

INNER JOIN

STRUCTURE s

ON

r.CODE = s.REGION

INNER JOIN

STRUCTUREINSPECTION si

ON

s.STR\_ID = si.STR\_ID

INNER JOIN

WORKORDER wo

ON

si.WO\_ID = wo.ID

WHERE

r.NAME = 'Specific Region Name';

**16. Count of Active Switches per Transmission Line**

SELECT

tl.LINE\_NAME AS TransmissionLineName,

COUNT(sw.SWITCH\_ID) AS ActiveSwitchCount

FROM

TRANSMISSION\_LINE tl

LEFT JOIN

STRUCTURE s

ON

tl.LINE\_ID = s.LINEID\_1

LEFT JOIN

SWITCH sw

ON

s.STR\_ID = sw.STRUCTURE\_GUID

WHERE

sw.STATUS = 'Active'

GROUP BY

tl.LINE\_NAME;

**17. Retrieve Inspection Records for Poles with Specific Grades**

SELECT

p.POLE\_NUM AS PoleNumber,

g.OVERALL\_GRADE AS OverallGrade,

si.INSPECTION\_DATE AS LastInspectionDate,

si.COMMENTS AS InspectionComments

FROM

POLE p

INNER JOIN

GRADE g

ON

p.POLE\_GUID = g.POLE\_GUID

INNER JOIN

STRUCTUREINSPECTION si

ON

g.STR\_ID = si.STR\_ID

WHERE

g.OVERALL\_GRADE IN ('Poor', 'Critical')

ORDER BY

si.INSPECTION\_DATE DESC;

**18. Poles and Structures with Specific Voltage Ratings**

SELECT

s.STR\_NUM AS StructureNumber,

s.VOLTAGE AS StructureVoltage,

p.POLE\_NUM AS PoleNumber,

p.VOLTAGE AS PoleVoltage

FROM

STRUCTURE s

INNER JOIN

POLE p

ON

s.STR\_ID = p.STR\_GUID

WHERE

s.VOLTAGE BETWEEN 100 AND 500

OR

p.VOLTAGE BETWEEN 100 AND 500;

**19. Work Orders and Inspection Programs Associated with Specific Structures**

SELECT

wo.WO\_NAME AS WorkOrderName,

ip.NAME AS InspectionProgramName,

s.STR\_NUM AS StructureNumber,

s.PROGRESS\_STATUS AS ProgressStatus

FROM

WORKORDER wo

INNER JOIN

STRUCTUREINSPECTION si

ON

wo.ID = si.WO\_ID

INNER JOIN

STRUCTURE s

ON

si.STR\_ID = s.STR\_ID

INNER JOIN

INSPECTIONPROGRAM ip

ON

wo.INSPECTION\_PROGRAM\_ID = ip.ID

WHERE

s.STR\_NUM LIKE 'STR123%';

**20. List of Structures and Nearby Facilities (Stations, Switches)**

SELECT

s.STR\_NUM AS StructureNumber,

f.STATION\_ID AS NearbyStation,

f.SWITCH\_ID AS NearbySwitch,

f.ADJACENT AS AdjacentStructures

FROM

STRUCTURE s

INNER JOIN

FACILITYRELATION f

ON

s.STR\_ID = f.STR\_ID

WHERE

f.ADJACENT IS NOT NULL;

These queries can be further customized depending on specific business needs. Let me know if you need more scenarios or refinements!