

```
1  --Chetanya_Yadav
2  --Celebal_Technologies
3  --Student_id:CT_CSI_SQ_1260
4
5  WITH FileHierarchy AS (
6      -- Start with each node as its own root
7      SELECT
8          NodeID AS RootID,
9          NodeID,
10         SizeBytes
11     FROM FileSystem
12
13     UNION ALL
14
15     -- Recursively join children
16     SELECT
17         fh.RootID,
18         fs.NodeID,
19         fs.SizeBytes
20     FROM FileHierarchy fh
21     JOIN FileSystem fs ON fs.ParentID = fh.NodeID
22 )
23
24 -- Final aggregation
25 SELECT
26     fs.NodeID,
27     fs.NodeName,
28     SUM(COALESCE(fh.SizeBytes, 0)) AS SizeBytes
29 FROM FileHierarchy fh
30 JOIN FileSystem fs ON fs.NodeID = fh.RootID
31 GROUP BY fs.NodeID, fs.NodeName
32 ORDER BY fs.NodeID;
33
```