

Training Database of the Institute of Digital and Autonomous Construction

Hamburg University of Technology

Measured values

Questions:

1. implement an SQL query that contains all temperature values of the sensor node (SensorId = 1) and the associated measurement times.
2. implement an SQL query that displays all temperature values of the sensor nodes (SensorId = 1 and SensorId = 2) and the associated measurement times.
3. implement an SQL query that displays the value of the resulting acceleration of the sensor node (SensorId = 1) at all measurement times.
4. implement an SQL query that displays the measurement times at which the temperature values of the sensor node (SensorId = 1 and SensorId = 2) are identical.

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Solutions:

1. SELECT Timestamp, Temp FROM SensorNode WHERE SensorId = 1
2. SELECT SensorNode1.Timestamp, SensorNode1.Temp AS Temp1,
SensorNode2.Temp AS Temp2 FROM SensorNode AS SensorNode1,
SensorNode AS SensorNode2 WHERE SensorNode1.SensorId = 1
AND SensorNode2.SensorId = 2 AND SensorNode1.Timestamp =
SensorNode2.Timestamp
3. SELECT TimeStamp, sqrt(AccX*AccX + AccY*AccY + AccZ*AccZ) AS
Resulting FROM SensorNode WHERE SensorId = 1
4. SELECT SensorNode1.TimeStamp AS Time FROM SensorNode as
SensorNode1, SensorNode as SensorNode2 WHERE
SensorNode1.SensorId = 1 AND SensorNode2.SensorId = 2 AND
SensorNode1.Temp = SensorNode2.Temp AND
SensorNode1.Timestamp = SensorNode2.Timestamp