

window	incoming data	data arrived to db	schedule trigger	thumbing trigger	Trigger behavior
12PM to 1PM	1000 records	1:00 PM	1:10PM	1:10PM	both trigger does loads data
1PM to 2PM	1000 records	2:50 PM	2PM	2PM	both triggers fails to load the data
2PM to 3PM	1000 records	3:00 PM	3:10PM	3:10PM	schedule trigger loads only 2PM to 3PM data and Thumbing window trigger executes both 1PM to 2PM and 2PM to 3PM

Trigger Behavior Analysis

1. **12 PM to 1 PM Window:**
 - **Data Arrival Time:** 1:00 PM.
 - **Trigger Execution:** Both the **schedule trigger** (1:10 PM) and the **tumbling window trigger** (1:10 PM) successfully load the data.
 - **Reason:** The data is available in the database before the trigger's execution time.
2. **1 PM to 2 PM Window:**
 - **Data Arrival Time:** 2:50 PM.
 - **Trigger Execution:**
 - **Schedule Trigger (2 PM):** Fails to load the data because the data isn't available yet (arrives late).
 - **Tumbling Window Trigger (2 PM):** Fails to load the data for the same reason (data isn't ready at the trigger time).
3. **2 PM to 3 PM Window:**
 - **Data Arrival Time:** 3:00 PM.
 - **Trigger Execution (3:10 PM):**
 - **Schedule Trigger:** Loads only the **2 PM to 3 PM data** because it doesn't track state for earlier windows.
 - **Tumbling Window Trigger:** Executes for both the **1 PM to 2 PM** (missed earlier) and **2 PM to 3 PM** windows. It processes the missed window because tumbling window triggers maintain state and reprocess missed windows when data becomes available.