

Project Name:Agentic AI Run Tracker

Team Members:Kireeti Reddy P-PES1UG23CS307

K Sailakshmi Srinivas-PES1UG23CS271

Triggers:

```
DELIMITER //
CREATE TRIGGER trg_run_parent_not_self
BEFORE INSERT ON Run
FOR EACH ROW
BEGIN
    IF NEW.Parent_RunID IS NOT NULL AND NEW.Parent_RunID = NEW.RunID THEN
        SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = 'Run cannot parent itself';
    END IF;
END//
DELIMITER ;
```

```
AgenticAI_Run_Tracker-->DELIMITER //
AgenticAI_Run_Tracker-->CREATE TRIGGER trg_run_parent_not_self
-> BEFORE INSERT ON Run
-> FOR EACH ROW
-> BEGIN
->     IF NEW.Parent_RunID IS NOT NULL AND NEW.Parent_RunID = NEW.RunID THEN
->         SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = 'Run cannot parent itself'
;
->     END IF;
-> END//
```

Query OK, 0 rows affected (0.004 sec)

```
[AgenticAI_Run_Tracker-->DELIMITER ;
AgenticAI_Run_Tracker-->█
```

]

```
DELIMITER //
CREATE TRIGGER trg_artifact_checksum_default
BEFORE INSERT ON Artifact
FOR EACH ROW
BEGIN
    IF NEW.Checksum IS NULL THEN
        SET NEW.Checksum = SHA2(NEW.URI, 256);
    END IF;
END//
DELIMITER ;
```

```
AgenticAI_Run_Tracker-->DELIMITER //
AgenticAI_Run_Tracker-->CREATE TRIGGER trg_artifact_checksum_default
-> BEFORE INSERT ON Artifact
-> FOR EACH ROW
-> BEGIN
->     IF NEW.Checksum IS NULL THEN
->         SET NEW.Checksum = SHA2(NEW.URI, 256);
->     END IF;
-> END//
```

Query OK, 0 rows affected (0.005 sec)

```
AgenticAI_Run_Tracker-->DELIMITER ;
AgenticAI_Run_Tracker-->█
```

Project Name:Agentic AI Run Tracker

Team Members:Kireeti Reddy P-PES1UG23CS307

K Sailakshmi Srinivas-PES1UG23CS271

Functions:

```
DELIMITER $$
CREATE FUNCTION count_agents_in_project(p_project_id BIGINT UNSIGNED)
RETURNS INT
DETERMINISTIC
READS SQL DATA
BEGIN
    DECLARE agent_count INT;
    SELECT COUNT(*) INTO agent_count
    FROM Agent
    WHERE ProjectID = p_project_id;
    RETURN agent_count;
END $$
DELIMITER ;
```

```
AgenticAI_Run_Tracker-->DELIMITER $$
AgenticAI_Run_Tracker-->CREATE FUNCTION count_agents_in_project(p_project_id BIG
INT UNSIGNED)
-> RETURNS INT
-> DETERMINISTIC
-> READS SQL DATA
-> BEGIN
->     DECLARE agent_count INT;
->     SELECT COUNT(*) INTO agent_count
->     FROM Agent
->     WHERE ProjectID = p_project_id;
->     RETURN agent_count;
-> END $$
Query OK, 0 rows affected (0.004 sec)

AgenticAI_Run_Tracker-->DELIMITER ;
AgenticAI_Run_Tracker-->█
```

Project Name:Agentic AI Run Tracker

Team Members:Kireeti Reddy P-PES1UG23CS307

K Sailakshmi Srinivas-PES1UG23CS271

Procedures:

```
DELIMITER &&
CREATE PROCEDURE GetRunsByAgent (
    IN p_agent_id BIGINT UNSIGNED
)
BEGIN
    SELECT * FROM Run WHERE AgentID = p_agent_id ORDER BY time DESC;
END &&
DELIMITER ;
```

```
AgenticAI_Run_Tracker-->DELIMITER &&
AgenticAI_Run_Tracker-->CREATE PROCEDURE GetRunsByAgent (
    -> IN p_agent_id BIGINT UNSIGNED
    -> )
    -> BEGIN
    -> SELECT * FROM Run WHERE AgentID = p_agent_id ORDER BY time DESC;
    -> END &&
Query OK, 0 rows affected (0.002 sec)
```

```
AgenticAI_Run_Tracker-->DELIMITER ;
AgenticAI_Run_Tracker-->
```

```
DELIMITER &&
CREATE PROCEDURE GetRunMetrics (
    IN p_run_id BIGINT UNSIGNED
)
BEGIN
    SELECT Name, DataType, Value_Numeric, Value_Text
    FROM RunMetric
    WHERE RunID = p_run_id;
END &&
DELIMITER ;
```

```
AgenticAI_Run_Tracker-->DELIMITER &&
AgenticAI_Run_Tracker-->CREATE PROCEDURE GetRunMetrics (
    -> IN p_run_id BIGINT UNSIGNED
    -> )
    -> BEGIN
    -> SELECT Name, DataType, Value_Numeric, Value_Text
    -> FROM RunMetric
    -> WHERE RunID = p_run_id;
    -> END &&
Query OK, 0 rows affected (0.003 sec)
```

```
AgenticAI_Run_Tracker-->DELIMITER ;
AgenticAI_Run_Tracker-->
```

```
DELIMITER &&
CREATE PROCEDURE GetArtifactsForRun (
```

Project Name:Agentic AI Run Tracker

Team Members:Kireeti Reddy P-PES1UG23CS307

K Sailakshmi Srinivas-PES1UG23CS271

```
IN p_run_id BIGINT UNSIGNED
)
BEGIN
    SELECT Type, URI, Checksum, Created_at
    FROM Artifact
    WHERE RunID = p_run_id;
END &&
DELIMITER ;
```

```
AgenticAI_Run_Tracker-->DELIMITER &&
AgenticAI_Run_Tracker-->CREATE PROCEDURE GetArtifactsForRun (
    -> IN p_run_id BIGINT UNSIGNED
    -> )
    -> BEGIN
    -> SELECT Type, URI, Checksum, Created_at
    -> FROM Artifact
    -> WHERE RunID = p_run_id;
    -> END &&
Query OK, 0 rows affected (0.003 sec)

AgenticAI_Run_Tracker-->DELIMITER ;
AgenticAI_Run_Tracker-->
```

Complex Queries:

Find Runs where the count of completed steps (Step_Type = 'finalize' and Status = 'ok') is less than total steps

```
SELECT r.RunID, r.Status,
    (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID AND rs.Step_Type
= 'finalize' AND rs.Status = 'ok') AS Completed_Finalize_Steps,
    (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID) AS Total_Steps
FROM Run r
WHERE (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID AND
rs.Step_Type = 'finalize' AND rs.Status = 'ok')
    < (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID);
```

```
AgenticAI_Run_Tracker-->SELECT r.RunID, r.Status,
    -> (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID AND rs.Step_Type = 'finalize' AND rs.Status = 'ok') AS Completed_Finalize_Steps,
    -> (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID) AS Total_Steps
    -> FROM Run r
    -> WHERE (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID AND rs.Step_Type = 'finalize' AND rs.Status = 'ok')
    -> < (SELECT COUNT(*) FROM RunStep rs WHERE rs.RunID = r.RunID);
```

RunID	Status	Completed_Finalize_Steps	Total_Steps
1	queued	0	3
2	running	0	4
3	succeeded	0	2
4	failed	0	1

4 rows in set (0.005 sec)

```
AgenticAI_Run_Tracker-->
```

Project Name:Agentic AI Run Tracker

Team Members:Kireeti Reddy P-PES1UG23CS307

K Sailakshmi Srinivas-PES1UG23CS271

List all Runs where the average latency metric is greater than the overall average latency of all runs

```
SELECT r.RunID, r.Status,
       (SELECT AVG(Value_Numeric) FROM RunMetric rm WHERE rm.RunID = r.RunID AND
        rm.Name = 'latency_ms') AS Run_Latency
FROM Run r
WHERE (SELECT AVG(Value_Numeric) FROM RunMetric rm WHERE rm.Name =
'latency_ms') <
      (SELECT AVG(Value_Numeric) FROM RunMetric rm WHERE rm.RunID = r.RunID
AND rm.Name = 'latency_ms');
```

```
AgenticAI_Run_Tracker-->SELECT r.RunID, r.Status,
->   (SELECT AVG(Value_Numeric) FROM RunMetric rm WHERE rm.RunID = r.RunID A
ND rm.Name = 'latency_ms') AS Run_Latency
-> FROM Run r
-> WHERE (SELECT AVG(Value_Numeric) FROM RunMetric rm WHERE rm.Name = 'laten
cy_ms') <
->       (SELECT AVG(Value_Numeric) FROM RunMetric rm WHERE rm.RunID = r.Run
ID AND rm.Name = 'latency_ms');
+-----+-----+-----+
| RunID | Status | Run_Latency |
+-----+-----+-----+
|      1 | queued |          1200 |
+-----+-----+-----+
1 row in set (0.003 sec)

AgenticAI_Run_Tracker-->■
```

List Projects for which no agent has run any run

```
SELECT p.ProjectID, p.Name
FROM Project p
WHERE NOT EXISTS (
    SELECT 1 FROM Agent a
    JOIN Run r ON a.AgentID = r.AgentID
    WHERE a.ProjectID = p.ProjectID
);
```

```
AgenticAI_Run_Tracker-->SELECT p.ProjectID, p.Name
-> FROM Project p
-> WHERE NOT EXISTS (
->   SELECT 1 FROM Agent a
->   JOIN Run r ON a.AgentID = r.AgentID
->   WHERE a.ProjectID = p.ProjectID
-> );
+-----+-----+
| ProjectID | Name |
+-----+-----+
|          6 | Aquila |
|          7 | Lyra |
|          8 | Vega |
+-----+-----+
3 rows in set (0.006 sec)

AgenticAI_Run_Tracker-->■
```