

```

1  ...
2
3  # Read the staged claim records into memory
4  curated_policies = dlt.read("curated_policies")
5  # Evaluate the validity of the claim
6  curated_claims = curated_policies \
7      .alias("a") \
8      .join(
9          curated_policies.alias("b"),
10         on = F.col("a.policy_number") == F.col("b.policy_number"),
11         how = "left"
12     ) \
13     .select([F.col(f"a.{c}") for c in curated_claims.columns] + [F.col(f"b.
14 {c}").alias(f"policy_{c}") for c in ("effective_date", "expiry_date")]) \
15     .withColumn(
16         # Calculate the number of months between coverage starting and the
17         # claim being filed
18         "months_since_covered", F.round(F.months_between(F.col("claim_date"),
19 F.col("policy_effective_date")))
20     ) \
21     .withColumn(
22         # Check if the claim was filed before the policy came into effect
23         "claim_before_covered", F.when(F.col("claim_date") < F.col("policy_
24 effective_date"), F.lit(1)).otherwise(F.lit(0))
25     ) \
26     .withColumn(
27         # Calculate the number of days between the incident occurring and the
28         # claim being filed
29         "days_between_incident_and_claim", F.datediff(F.col("claim_date"),
30 F.col("incident_date"))
31     )
32
33
34 # Return the curated dataset
35 return curated_claims

```

One significant advantage of DLT is the ability to specify and enforce data quality standards. We can set expectations for each DLT table with detailed data quality constraints that should be applied to the contents of the table. Currently, DLT supports expectations for three different scenarios:

Decorator	Description
<code>expect</code>	Retain records that violate expectations
<code>expect_or_drop</code>	Drop records that violate expectations
<code>expect_or_fail</code>	Halt the execution if any record(s) violate constraints

Expectations can be defined with one or more data quality constraints. Each constraint requires a description and a Python or SQL expression to evaluate. Multiple constraints can be defined using the `expect_all`, `expect_all_or_drop`, and `expect_all_or_fail` decorators. Each decorator expects a Python dictionary where the keys are the constraint descriptions, and the values are the respective expressions. The example below shows multiple data quality constraints for the retain and drop scenarios described above.

```

1  @dlt.expect_all({
2      "valid_driver_license": "driver_license_issue_date > (current_date() -
3      cast(cast(driver_age AS INT) AS INTERVAL YEAR))",
4      "valid_claim_amount": "total_claim_amount > 0",
5      "valid_coverage": "months_since_covered > 0",
6      "valid_incident_before_claim": "days_between_incident_and_claim > 0"
7  })
8  @dlt.expect_all_or_drop({
9      "valid_claim_number": "claim_number IS NOT NULL",
10     "valid_policy_number": "policy_number IS NOT NULL",
11     "valid_claim_date": "claim_date < current_date",
12     "valid_incident_date": "incident_date < current_date",
13     "valid_incident_hour": "incident_hour between 0 and 24",
14     "valid_driver_age": "driver_age > 16",
15     "valid_effective_date": "policy_effective_date < current_date()",
16     "valid_expiry_date": "policy_expiry_date <= current_date()"
17 })
18
19 def curate_claims():
20     ...

```