[ API (Flight JSON) ]

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[ Staging Table ]

(raw API dump in Snowflake or S3)

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[ Dimension Processing ]

┌───────────────────────────┐

| Check dim\_airline |

| - If airline exists → get airline\_id

| - If not → insert new row (IDENTITY auto assigns surrogate key)

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| Check dim\_airport (departure & arrival) |

| - If airport exists → get airport\_id

| - If not → insert new row (new surrogate key assigned)

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| Check dim\_flight |

| - If flight exists → get flight\_id

| - If not → insert new row (new surrogate key assigned)

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[ Fact Loading ]

- Replace airline, airport, flight natural keys with surrogate keys

- Insert into fact\_flight\_performance

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[ Star Schema Ready for Analytics ]