

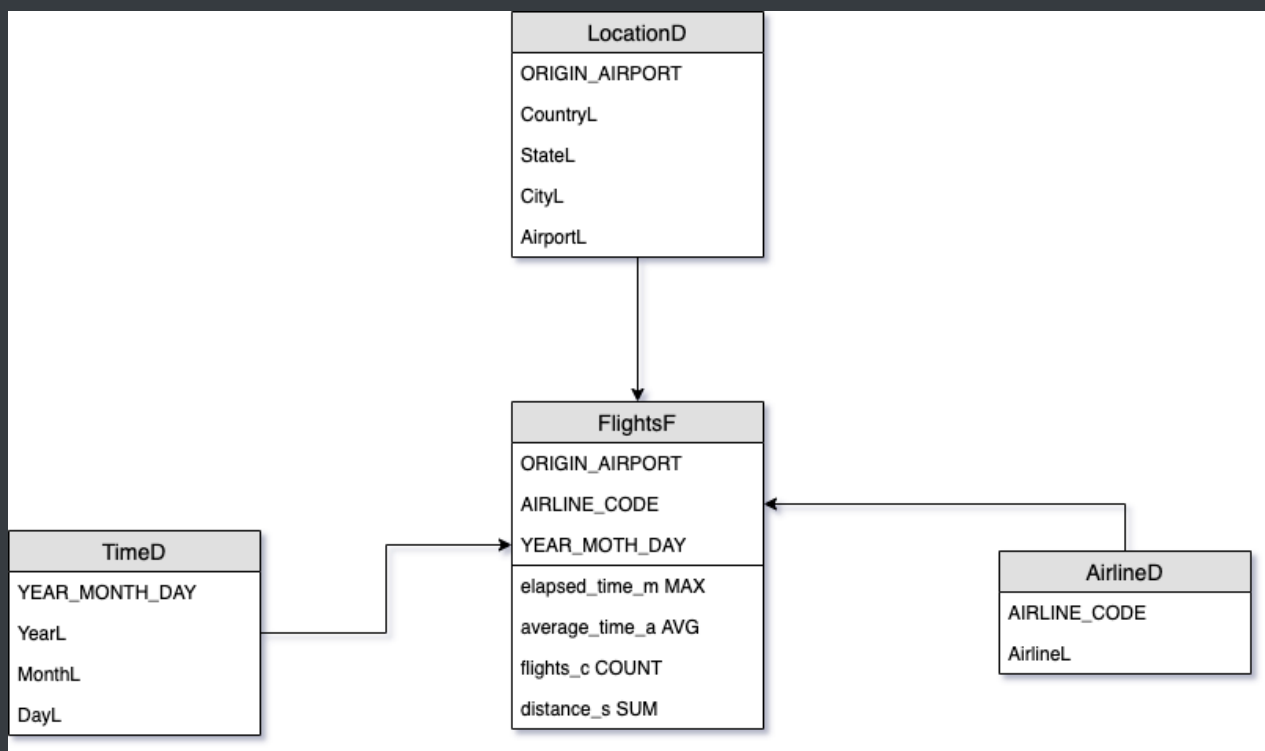
# DATA WAREHOUSING

## TDT4300 – Assignment 1

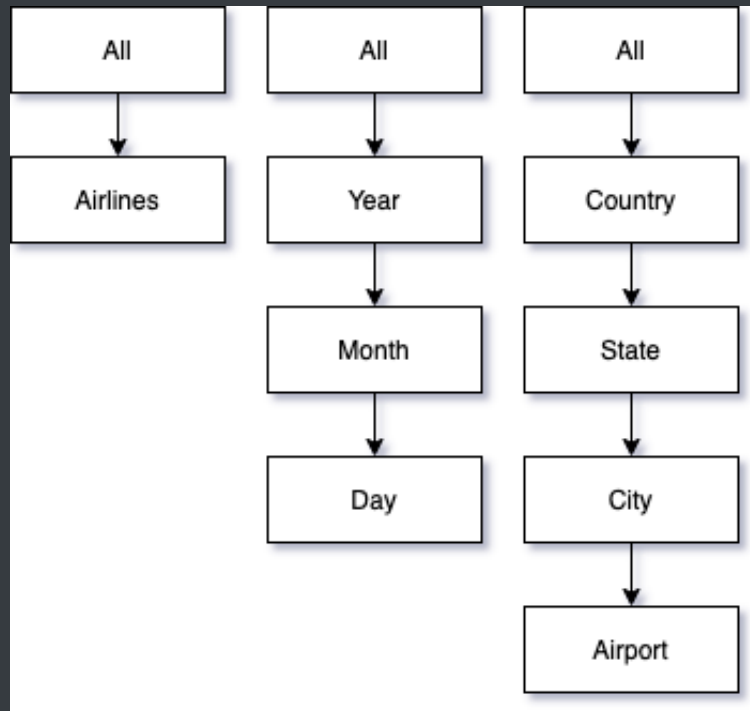
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## Modeling

Star Schema:



Concept Hierarchies:



No particular assumptions made.

## OLAP Operations

### Report 1

```

SELECT
  [Measures].[elapsed_time_m] ON COLUMNS
FROM [MyCube]
  
```

	All-M
<i>elapsed_tim...</i>	724

No OLAP operation.

### Report 2

```

SELECT
  [Measures].[elapsed_time_a] ON COLUMNS,
  [AirlinesD].[AirlinesH].[AirlinesL] ON ROWS
FROM [MyCube]
  
```

	<i>elapsed_ti...</i>
<i>United Air Li...</i>	203.903024810...
<i>American Ai...</i>	175.728481599...
<i>US Airways...</i>	157.482064622...
<i>Frontier Airli...</i>	151.367128463...
<i>JetBlue Air...</i>	174.940778688...
<i>Skywest Airl...</i>	103.396047058...
<i>Alaska Airli...</i>	181.831870357...
<i>Spirit Air Li...</i>	161.056623931...
<i>Southwest ...</i>	123.029386500...
<i>Delta Air Lin...</i>	150.878402643...
<i>Atlantic Sou...</i>	103.573642708...
<i>Hawaiian Ai...</i>	105.539007092...
<i>American E...</i>	102.849522154...
<i>Virgin Amer...</i>	214.584558823...

- Drill-down on AirlinesD from All to AirlinesL.

### Report 3

```
SELECT
  [Measures].[flight_c] ON COLUMNS
FROM [MyCube] WHERE [TimeD].[TimeH].[DayL].&[2015-01-03]
```

	<i>3 Jan 2015</i>
<i>flight_c</i>	15434

- Drill-down on TimeD to DayL.
- Slice on TimeD with DayL equal to "2015-01-03"

### Report 4

```
SELECT
  NON EMPTY TopCount([LocationD].[LocationH].[AirportL].MEMBERS, 1,
[Measures].[airport_c]) ON ROWS,
  NON EMPTY TopCount([TimeD].[TimeH].[DayL], 1, [Measures].[airport_c]) ON
COLUMNS
FROM MyCube
```

	<i>2 Jan 2015</i>
<i>Hartsfield-J...</i>	630

- Drill-down on LocationD from All to AirportL.

- Drill-down on TimeD from All to DayL.

## Report 5

```
SELECT
  [Measures].[distance_S] ON COLUMNS,
  NON EMPTY Order([TimeD].[TimeH].[DayL], [Measures].[distance_s],BASC) ON
ROWS
FROM [MyCube]
```

	<i>distance_s</i>
<i>7 Jan 2015</i>	9085048
<i>6 Jan 2015</i>	12008665
<i>1 Jan 2015</i>	12024266
<i>3 Jan 2015</i>	13099597
<i>5 Jan 2015</i>	13573080
<i>4 Jan 2015</i>	13704246
<i>2 Jan 2015</i>	14058856

- Drill-down on TimeD from All to DayL.