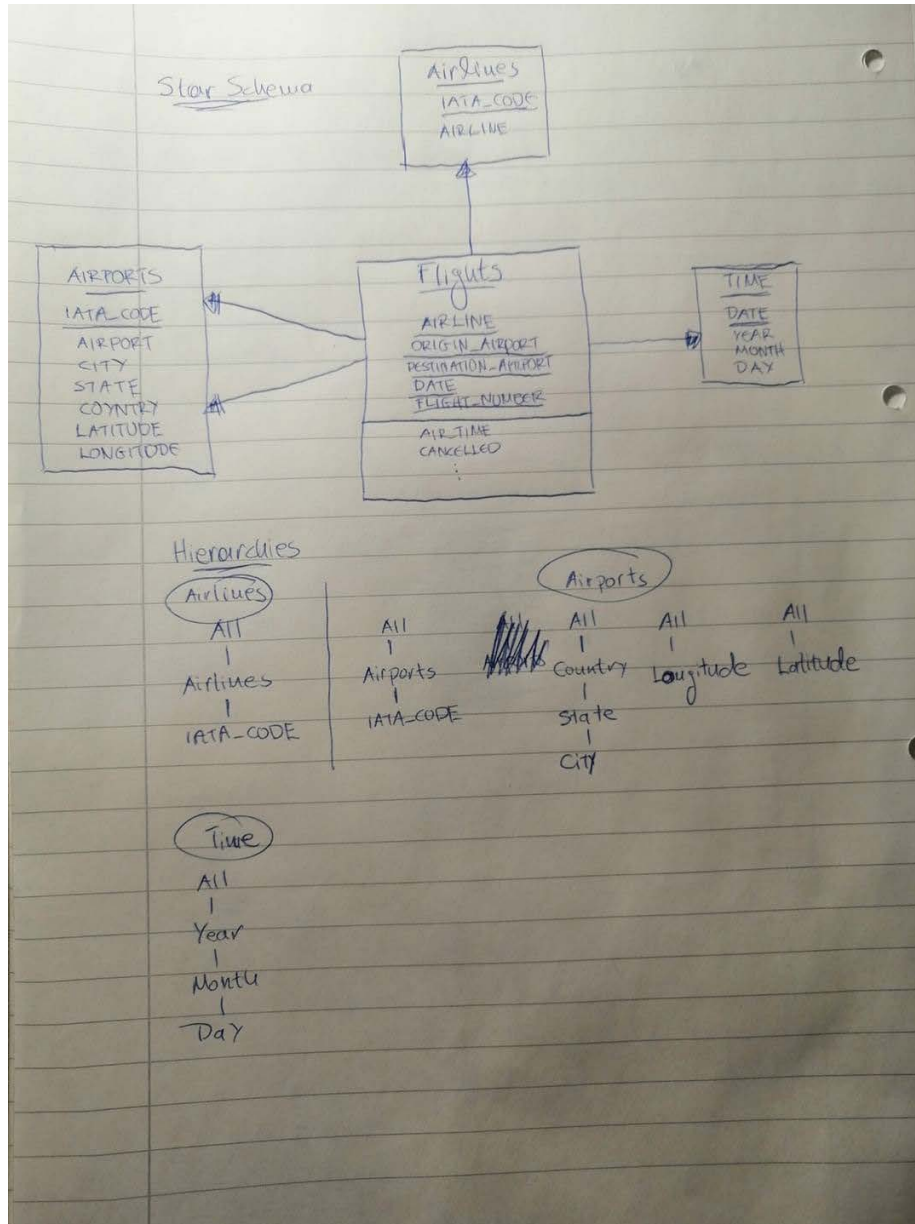


DATA WAREHOUSING AND DATA MINING

PROJECT 1

TEAM 98

1)



2)

- 1) The drill-down is performed over All to air_time level.
Slice operation on the hierarchy Time for a single dimension
air_time= MAX
- 2) The drill-down is performed over All to elapsed_time level on the Time hierarchy.
The drill-down is performed over All to airlines level on the Airlines hierarchy.
Slice operation on the hierarchy Time for a single dimension
elapsed_time= AVG
- 3) The drill-down is performed over All to flight_number level.
Slice operation on the hierarchy Date for a single dimension Month= Feb.
- 4) The drill-down is performed over All to Month level.
The drill-down is performed over All to Airport level.
Dice operation for dimension Cancelled= 0 and
COUNT(flight_number)= MAX
- 5) The drill-down is performed over All to Month level.
Slice operation for a single dimension Distance= COUNT.

3)

REPORT 1:

```
SELECT [MEASURES].[AIR_TIME] ON COLUMNS  
FROM [CUBE]
```

| | |
|----------|-----|
| | All |
| Air_Time | 690 |

REPORT 2:

```
SELECT [MEASURES].[ELAPSED_TIME] ON COLUMNS
[AIRLINES].[AIRLINES].[AIRLINES] ON ROWS
FROM [CUBE]
```

| | Elapsed_Time |
|---------------------|----------------|
| › United Air Li... | 191.0209334133 |
| › American Ai... | 171.6737130932 |
| › US Airways ... | 151.4722267553 |
| › Frontier Airli... | 154.0158112624 |
| › JetBlue Air... | 170.5659478117 |
| › Skywest Airli... | 99.74338521129 |
| › Alaska Airlin... | 179.2018823068 |
| › Spirit Air Lin... | 158.6128705440 |

REPORT 3:

```
SELECT [MEASURES].[TOTAL_FLIGHTS] ON COLUMNS
FROM [CUBE]
WHERE ([TIME].[TIME].[MONTH].&[2015-02])
```

| | 2015 Feb |
|---------------|----------|
| Total_Flights | 407663 |

REPORT 4:

```
SELECT [MEASURES].[TOTAL_FLIGHTS] ON COLUMNS
[TIME].[TIME].[MONTH] * TOPCOUNT(ORDER([AIRPORTS].[AIRPORTS].[IATA_CODE],
[MEASURES].[TOTAL_FLIGHTS], DESC), 1) ON ROWS
FROM [CUBE]
```

| | | Total_Flights |
|------------|-----|---------------|
| ➤ 2015 Jan | ATL | 29172 |
| ➤ 2015 Feb | ATL | 26343 |
| ➤ 2015 Mar | ATL | 32454 |
| ➤ 2015 Apr | ATL | 3310 |

REPORT 5:

```
SELECT [MEASURES].[DISTANCE COVERED] ON COLUMNS
ORDER([TIME].[TIME].[MONTH], [MEASURES].[DISTANCE_COVERED], DESC) ON ROWS
FROM [CUBE]
```

| | Distance_Cove... |
|------------|------------------|
| ➤ 2015 Mar | 411546494 |
| ➤ 2015 Jan | 377507097 |
| ➤ 2015 Feb | 343689908 |
| ➤ 2015 Apr | 41744774 |