

Modelo dimensional do Departamento da Guarda Municipal

Modelagem Informacional

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Exercício 1

CALENDAR Dimension

| CalendarKey | FullDate | DayOfWeek | DayOfMonth | Month | Qtr | Year |
|-------------|-----------|-----------|------------|---------|-----|------|
| 1 | 01/jan/20 | Wednesday | 1 | January | 1 | 2020 |
| 2 | 02/jan/20 | Thursday | 2 | January | 1 | 2020 |

OFFICER Dimension

| OfficerKey | OfficerID | OfficerName | OfficerRank |
|------------|-----------|-------------|-------------|
| 1 | 1 | Joe | Sergeant |
| 2 | 2 | Mike | Patrolman |
| 3 | 3 | Bob | Patrolman |

TICKETTYPE Dimension

| TicketTypeKey | TicketCategory | TicketViolation | TicketFee |
|---------------|----------------|-----------------|-----------|
| 1 | Parking | Meter Expired | \$100,00 |
| 2 | Parking | Hydrant | \$150,00 |
| 3 | Driving | Red Light | \$200,00 |
| 4 | Driving | Seat Belt | \$100,00 |

VEHICLE Dimension

| VehicleKey | VehicleLPN | VehicleMake | VehicleModel | VehicleYear | VehicleOwnerDLN | VehicleOwnerName | VehicleOwnerGender | VehicleOwnerBirthYear |
|------------|------------|-------------|--------------|-------------|-----------------|------------------|--------------------|-----------------------|
| 1 | IL1111 | Honda | CRV | 2017 | 111 | Bill | Male | 1998 |
| 2 | IL2222 | Honda | Civic | 2020 | 222 | Suzy | Female | 1987 |
| 3 | IL3333 | Honda | Civic | 2018 | 333 | David | Male | 1976 |

PAYER Dimension

| PayerKey | PayerDLN | PayerName | PayerGender | PayerBirthYear |
|----------|----------|-----------|-------------|----------------|
| 1 | 111 | Bill | Male | 1998 |
| 2 | 222 | Suzy | Female | 1987 |
| 3 | 333 | David | Male | 1976 |

TICKETREVENUE Fact Table

| CalendarKey | OfficerKey | PayerKey | VehicleKey | TicketTypeKey | TicketID | Amount |
|-------------|------------|----------|------------|---------------|----------|----------|
| 1 | 1 | 1 | 1 | 3 | 1 | \$200,00 |
| 2 | 2 | 2 | 2 | 3 | 2 | \$200,00 |
| 2 | 3 | 1 | 1 | 4 | 3 | \$100,00 |
| 1 | 1 | 1 | 1 | 1 | 4 | \$100,00 |
| 1 | 2 | 2 | 2 | 2 | 5 | \$150,00 |
| 2 | 3 | 3 | 3 | 2 | 6 | \$150,00 |

Figura 1: Tabelas do modelo TicketRevenue

Exercício 2

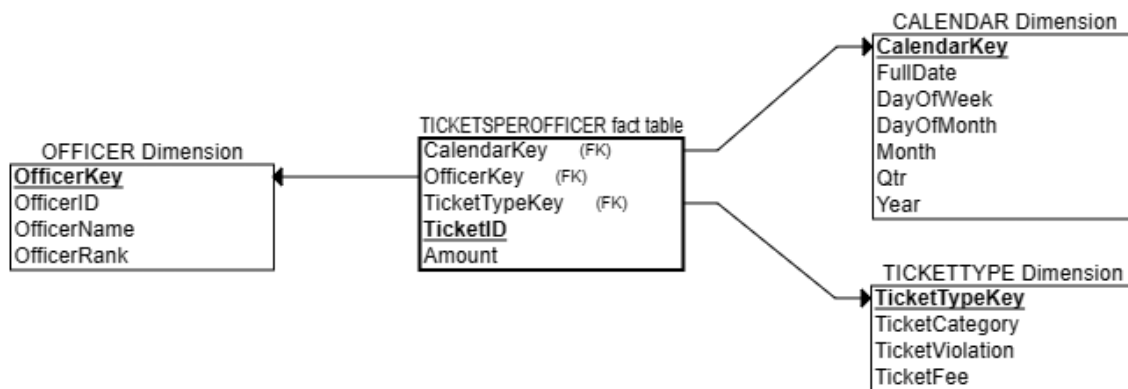


Figura 2: Modelo dimensional TicketsPerOfficer

Exercício 3

CALENDAR Dimension

| CalendarKey | FullDate | DayOfWeek | DayOfMonth | Month | Qtr | Year |
|-------------|-----------|-----------|------------|---------|-----|------|
| 1 | 01/jan/20 | Wednesday | 1 | January | 1 | 2020 |
| 2 | 02/jan/20 | Thursday | 2 | January | 1 | 2020 |

OFFICER Dimension

| OfficerKey | OfficerID | OfficerName | OfficerRank |
|------------|-----------|-------------|-------------|
| 1 | 1 | Joe | Sergeant |
| 2 | 2 | Mike | Patrolman |
| 3 | 3 | Bob | Patrolman |

TICKETTYPE Dimension

| TicketTypeKey | TicketCategory | TicketViolation | TicketFee |
|---------------|----------------|-----------------|-----------|
| 1 | Parking | Meter Expired | \$100,00 |
| 2 | Parking | Hydrant | \$150,00 |
| 3 | Driving | Red Light | \$200,00 |
| 4 | Driving | Seat Belt | \$100,00 |

TICKETSPEROFFICER Fact Table

| TicketID | CalendarKey | OfficerKey | TicketTypeKey | Amount |
|----------|-------------|------------|---------------|----------|
| 1 | 1 | 1 | 3 | \$200,00 |
| 2 | 1 | 1 | 1 | \$100,00 |
| 3 | 1 | 2 | 2 | \$150,00 |
| 4 | 2 | 2 | 3 | \$200,00 |
| 5 | 2 | 3 | 4 | \$100,00 |
| 6 | 2 | 3 | 2 | \$150,00 |

REVENUEPEROFFICER Aggregate Fact Table

| CalendarKey | OfficerKey | Revenue |
|-------------|------------|----------|
| 1 | 1 | \$300,00 |
| 1 | 2 | \$150,00 |
| 1 | 3 | \$0,00 |
| 2 | 1 | \$0,00 |
| 2 | 2 | \$200,00 |
| 2 | 3 | \$250,00 |

Figura 3: Tabelas do modelo TicketsPerOfficer