

# CSCI312 Big Data Management

## Assignment 2

### Report

#### Task 2

#### Fact Entity

- MEDICAL-SERVICE

#### Fact table Measure

- MEDICAL-SERVICE
  - serviceType
  - description
  - date
  - spentTime
  - cost
- The total number of medical services can be derived by using the aggregate function count(\*) and grouping by the respective dimensions.
- The total length of medical services can be derived by using the aggregate function sum(spentTime) and grouping by the respective dimensions.
- The average length of medical services can be derived by using the aggregate function sum(spentTime) and grouping by the respective dimensions.
- The total number of doctors/ paramedics/nurses involved in medical services can be derived by using aggregate count(role) and grouping by the respective dimensions.
- The average time spent on medical services per year,month,day can be derived by using aggregate function avg(spentTime) and grouping by Date.
- The total costs of medical services can be derived by using aggregate function sum(cost) and grouping by the respective dimensions.

## Fact table Dimension

- MEDICAL-SERVICE
  - MEDICAL-WORKER
  - ADMIN-WORKER
  - PATIENT
  - MEDICAL-FACILITIES
  - TIME

## Hierarchy

### JOB

- MEDICAL-WORKER
  - ROLE

### CALANDER

- TIME
  - YEAR
  - MONTH
  - DAY

### LOCATION

- ADDRESS
  - COUNTRY
  - CITY
  - STREET
  - ZIP
- PATIENT
  - COUNTRY
  - CITY
  - STREET
  - ZIP

- MEDICAL-WORKER
  - COUNTRY
  - CITY
  - STREET
  - ZIP
- ADMIN-WORKER
  - COUNTRY
  - CITY
  - STREET
  - ZIP

## ENTITIES DESCRIPTION

- MEDICAL-WORKER
  - staffID
  - name
  - phNumber
- MEDICAL-FACILITIE
  - name
  - Address
  - Specialization
- ASSIGNMENT
  - assignmentID
- ADMIN-WORKER
  - adminID
- CREDENTIAL
  - credentialID
- PATIENT
  - patientID
  - name

- phoneNumber

## Conceptual schema



