

# Introduction to Database Systems

## Olympic Games



ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE

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*“The most important motivation for the research work that resulted in the relational model was the objective of providing a sharp and clear boundary between the logical and physical aspects of database management.”*

— Edgar F. Codd, February 1982

## Contents

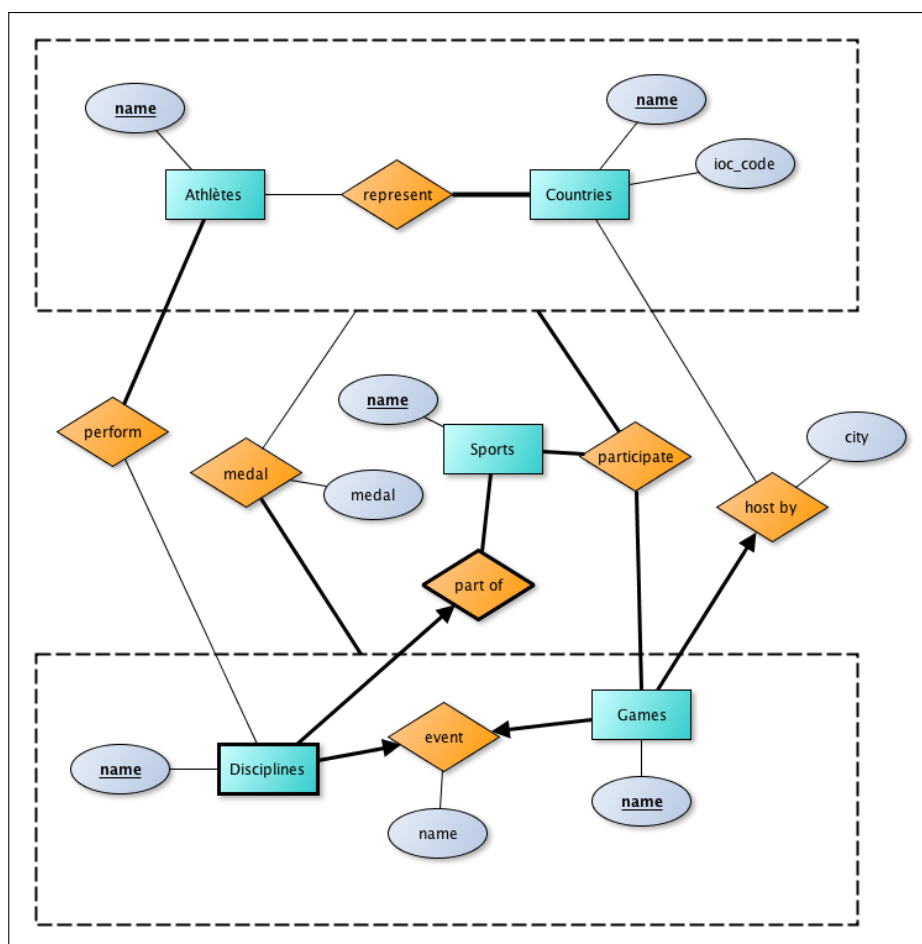
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## Introduction

Bla bla bla

## Entityrelationship model

Bla bla bla



## Relational schema and constraints

Bla bla bla

```
1 CREATE TABLE Residence (  
2     address          char(128) NOT NULL,  
3     phone            char(20)  NOT NULL,  
4     PRIMARY KEY (address, phone)  
5 )  
6  
7 CREATE TABLE Musician (  
8     ssn              char(20)  NOT NULL,  
9     name             char(20),  
10    res_address      char(128) NOT NULL,  
11    res_phone        char(20)  NOT NULL,  
12    PRIMARY KEY (ssn),  
13    FOREIGN KEY (res_address, res_phone) REFERENCES Residence  
14        ↪ (address, phone)  
15        ON DELETE NO ACTION  
16 )
```

Listing 3.1: Salut

## SQL Data definition language statements

Bla bla bla

```
1 CREATE TABLE Residence (  
2     address          char(128) NOT NULL,  
3     phone            char(20)  NOT NULL,  
4     PRIMARY KEY      (address, phone)  
5 )  
6  
7 CREATE TABLE Musician (  
8     ssn              char(20)  NOT NULL,  
9     name             char(20),  
10    res_address       char(128) NOT NULL,  
11    res_phone         char(20)  NOT NULL,  
12    PRIMARY KEY       (ssn),  
13    FOREIGN KEY       (res_address, res_phone) REFERENCES Residence  
14        └─(address, phone)  
15        ON DELETE NO ACTION  
16 )
```

Listing 4.1: Salut