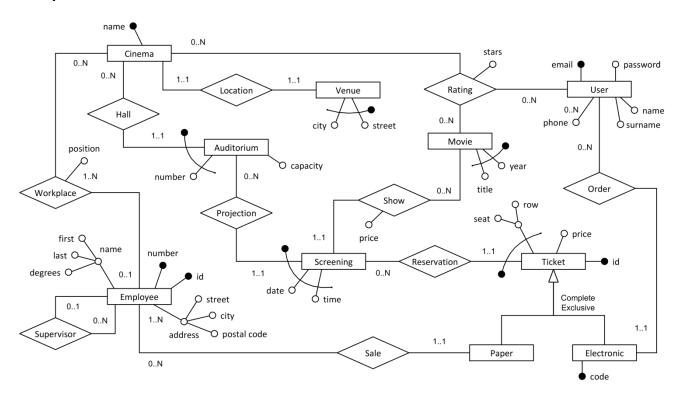
B0B36DBS: Database Systems | Class 4: Relational Model



01: System

02: Cinema

Cinema (name)

03: Venue

Solution A

Cinema (name)

Venue (street, city)

Location(cinema, street, city) FK: (cinema) ⊆ Cinema(name)

FK: (street, city) ⊆ Venue(street, city)

Solution B

Cinema(name, street, city)

04: Employee

```
Solution A
Employee(id, number)
Name(employee, first, last, degrees)
FK: (employee) ⊆ Employee(id)
Address(employee, street, city, postalCode)
FK: (employee) ⊆ Employee(id)
Solution B
Employee(id, number, first, last, degrees)
Address(employee, street, city, postalCode)
FK: (employee) ⊆ Employee(id)
```

05: Workplace

```
Boss(employee, superior)
  FK: (employee) ⊆ Employee(id)
  FK: (superior) ⊆ Employee(id)
Workplace(employee, cinema)
  FK: (employee) ⊆ Employee(id)
  FK: (cinema) ⊆ Cinema(name)
Position(employee, position)
  FK: (employee) ⊆ Workplace(employee)
```

06: Auditorium

```
Auditorium(number, cinema, capacity)
FK: (cinema) ⊆ Cinema(name)
```

07: Screening

```
Movie(title, year)
Screening(date, time, auditorium, cinema, movie, year, price)
FK: (auditorium, cinema) ⊆ Auditorium(number, cinema)
FK: (movie, year) ⊆ Movie(title, year)
```

08: Ticket

```
Ticket(id, seat, row, date, time, auditorium, cinema, price)
   FK: (date, time, auditorium, cinema) ⊆ Screening(date, time, auditorium, cinema)
PaperTicket(id)
   FK: (id) ⊆ Ticket(id)
ElectronicTicket(id, code)
   FK: (id) ⊆ Ticket(id)
```

09: Purchase

```
User(email, password, name, surname)
Phone(user, phone)
   FK: (user) ⊆ User(email)
PaperTicket(id, employee)
   FK: (id) ⊆ Ticket(id)
   FK: (employee) ⊆ Employee(id)
ElectronicTicket(id, code, user)
   FK: (id) ⊆ Ticket(id)
   FK: (user) ⊆ User(email)
```

10: Rating

```
Rating(user, movie, year, cinema, stars)
FK: (user) ⊆ User(email)
FK: (movie, year) ⊆ Movie(title, year)
FK: (cinema) ⊆ Cinema(name)
```