

# ER Data Model Report

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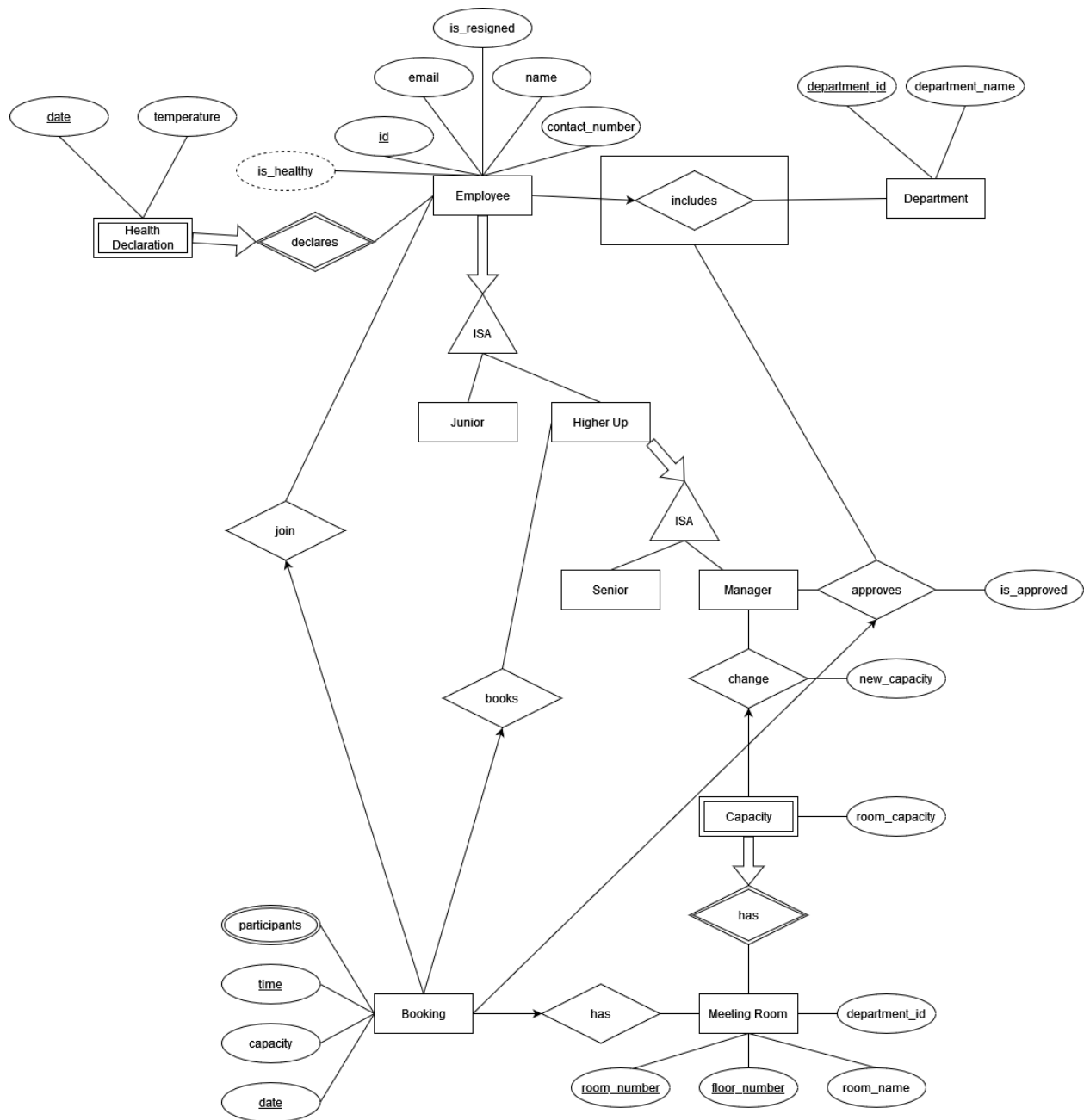
## Team 45

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## Justifications for any non-trivial design decisions

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1. An **Employee** is either a **Junior** or **Higher Up**, as a **Higher Up** is capable of booking his own room.
2. A **Higher up** is then either a **Senior** or **Manager**, as a **Manager** can approve and change the **capacity** of a meeting.
3. **Health Declaration** is a weak entity set of **Employee** because it requires its **date** and the Employee's **ID** to form a primary key.
4. **Employee, includes, Department** is an entity set which **approves** is an aggregation from the set. This is to capture the same department requirement when approving.
5. **Capacity** is a weak entity set of **Meeting Rooms** because it requires the **Meeting Room's** primary keys to form its own primary key.
6. **Capacity** is a separate entity from **Meeting Rooms** to indicate changing of room capacity.
7. **Junior** does not have any interaction, such as "asking to book a room", to capture the constraint that only a **Higher Ups** can book a booking.
8. **Meeting Room** contains the attribute **department\_id** to capture the intention that a **Manager** from the same department as the **Meeting Room** approves of the booking.

## Uncaptured Constraints by the ER data model

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1. Unable to indicate daily declaration. Employees can declare at any date multiple times.
2. Unable to block resigned employees from booking.
3. Unable to allow managers from the same department to approve meetings.
4. Unable to unbook the room.
5. Unable to show contact tracing