

## CHAPTER 2

# ER DIAGRAM & RELATION SCHEMA DIAGRAM

### 2.1 ER diagram

An entity relationship diagram, usually referred to as an e-r diagram represents the attributes, entities and relationships in a relational schema design.

- Entity types like agent, packages, and booking are represented using rectangular boxes in the E-R diagram(Fig 2.1)
- The attributes which characterize the entities are represented in horizontal ovals, each attached to the entity type using a straight line. The attribute which is designated as the primary key is identified by underlining it within the horizontal oval. For example PID, place\_name etc.
- Relationships like book, search for are represented in diamond boxes which are attached to the entity types participating in the relationship using straight lines.
- The total participation of the entities participating in the relationship represented inside the rhombus is identified by two straight lines from the entity type to the diamond. Whereas, the partial participation is identified by a single line.
- The cardinality ratios are as follows:
  1. BOOKING –TOURIST cardinality ratio is N: 1 as many bookings were done by a single tourist.
  2. TOURIST – REATING cardinality ratio is 1: N as a single user can give many tourist.
  3. TOURIST – PACKAGES cardinality ratio is M: N as many tourist can search for many packages.
  4. AGENT – PLACE\_INFO cardinality ratio is 1:N as one agent can give many place information
  5. AGENT – PACKAGES cardinality ratio is 1:N as one agent can provide many packages

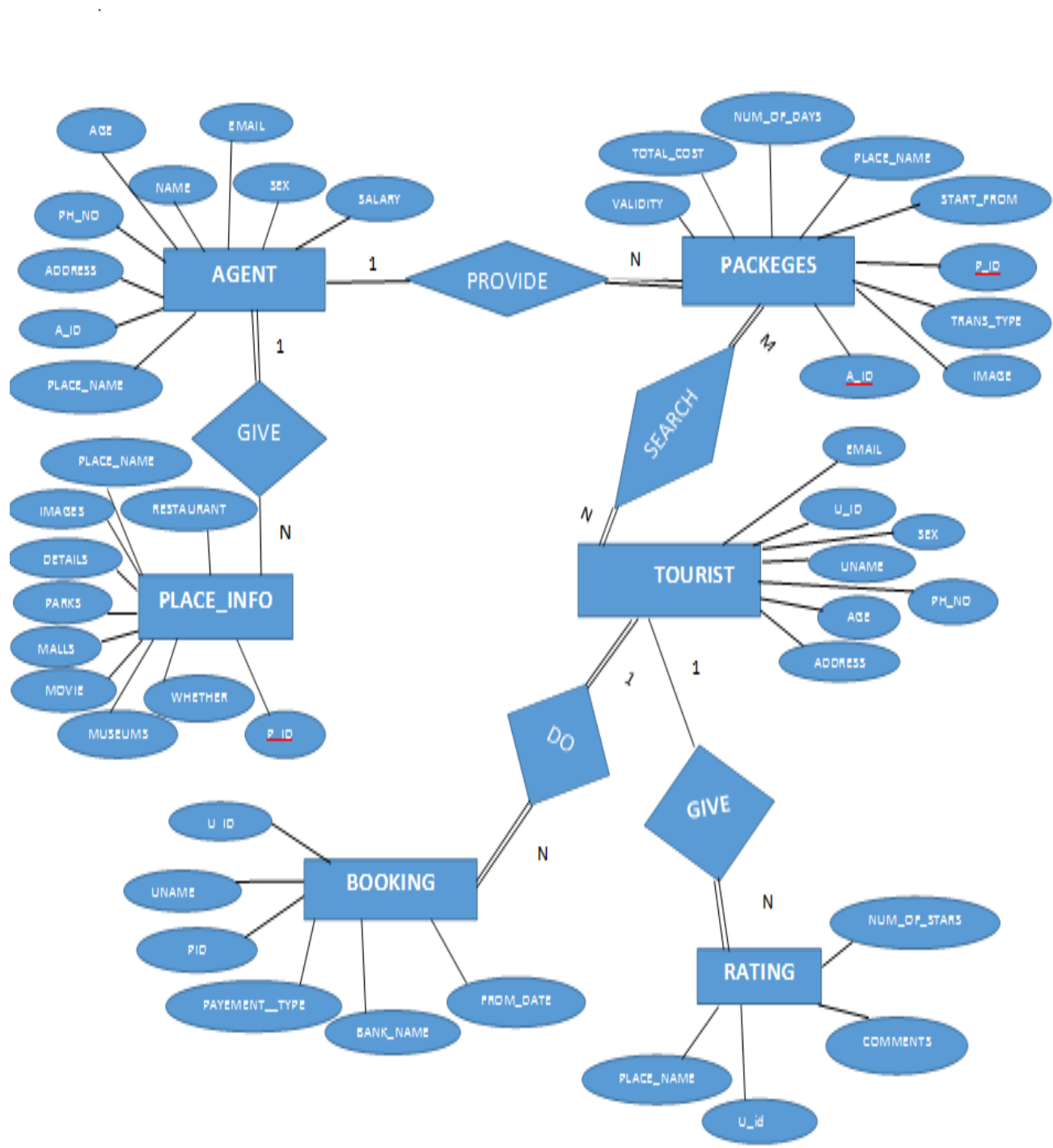


Fig 2.1 ER Diagram.