



PES UNIVERSITY

(Established under Karnataka Act No.16 of 2013)

100-ft Ring Road, BSK III Stage, Bangalore – 560 085 **Department
of CSE**

Semester : 5 Section H

DBMS MINI PROJECT REVIEW – 1

HOSTEL MANAGEMENT SYSTEM

ER DIAGRAM

Member – 1 NAME: Praneet V M

Member – 1 SRN: PES1UG23CS440

Member – 2 NAME: Raghavendra N

Member – 2 Name: PES1UG23CS461

USER SPECIFICATION

Entities and Their Attributes

1. Student (Strong

Entity) ◦ Attributes:

- ▣ s_id (Primary Key)
- ▣ name (Composite → f_name, m_name, l_name)
- ▣ p_no (Phone Number)

2. Local Guardian (Weak Entity – depends on

Student) ◦

Attributes:

- ▣ name
- ▣ p_no (Primary Key with partial key dependency) ◦

Relationship:

- ▣ has → Every student has exactly one local guardian (1:1).

3. Room (Entity) ◦

Attributes:

- ▣ r_no (Primary Key)
- ▣ no_of_people

4. Fees (Entity) ◦

Attributes:

- ▣ p_id (Primary Key)
- ▣ p_date
- ▣ p_method

5. Laundry (Entity) ◦

Attributes:

- ▣ l_no (Primary Key)
- ▣ days_of_laundry

6. Mess (Entity) ◦

Attributes:

- ▣ m_no (Primary Key)
- ▣ m_name

7. Warden (Entity) ◦ Attributes:

- ▣ name
- ▣ p_no
- ▣ w_id(Primary Key)

Relationships

1. Student – Local Guardian ◦ Relationship: has ◦ Cardinality: 1

student ↔ 1 local guardian (1:1)

2. Student – Room – Fees (Ternary Relationship) ◦

Relationships:

- ▢ **choose** → A student chooses a room. (N:1)
- ▢ **based on** → Room assignment can depend on fees. (1:1)
- ▢ **pays** → A student pays fees. (1:1)

3. Student – Mess ◦ Relationship: books ◦ Cardinality: A student can book exactly one mess (N:1).

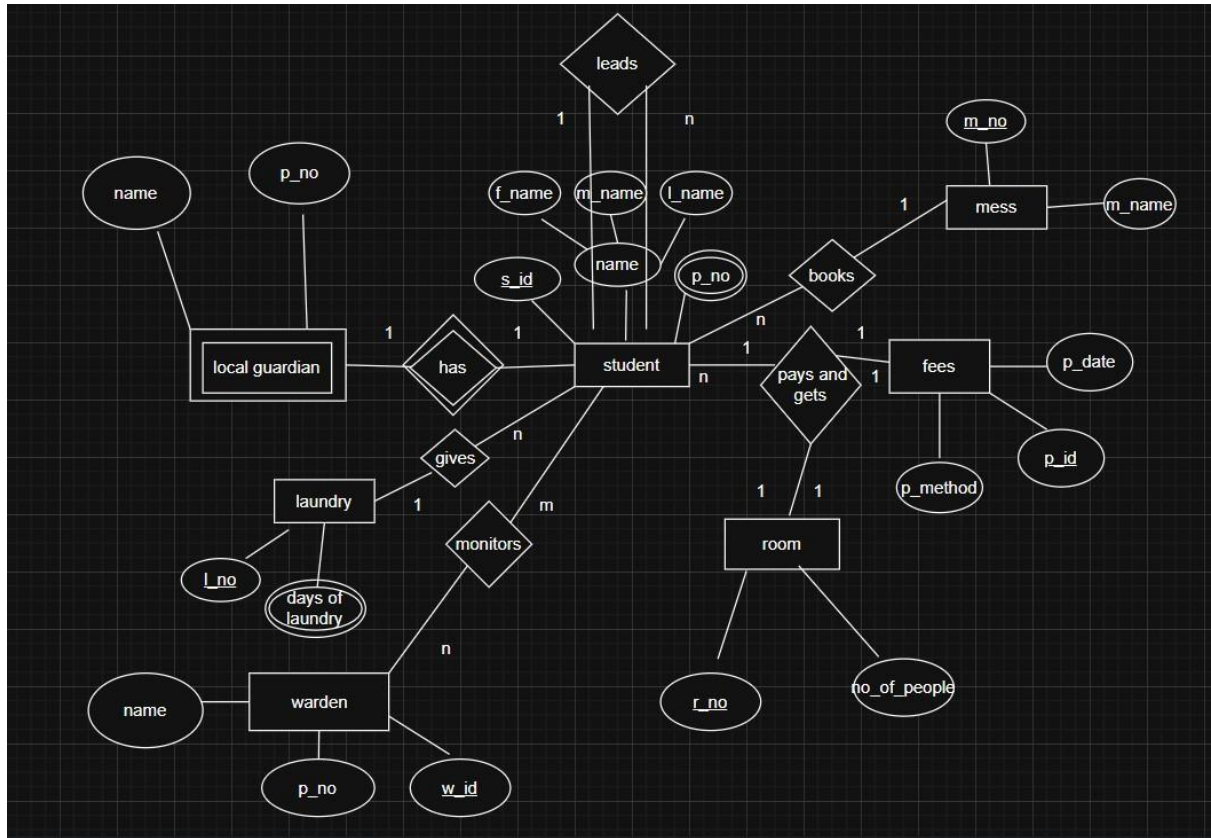
4. Student – Laundry ◦ Relationship: gives ◦ Cardinality: A student gives laundry (N:1).

5. Warden – Student ◦ Relationship: monitors ◦ Cardinality: different warden monitors many student(m:n)

6. Student – Student (Recursive Relationship) ◦

Relationship: leads ◦ Cardinality: One student can lead many students, but a student is led by only one leader.

ER DIAGRAM



SCHEMA

