Entity Relationship Diagram for College Management System

Entities:
1) Student
2) Faculty
3) Department
4) Hostel
5) Exams
6) Courses

Attributes:
1) Student: Id, Name, Address, Date_of_Birth, Age, Mobile_no, Gender
2) Faculty: Id, Name, Mobile_no, Department, Salary
3) Departments: Id, Name, No. of Courses, No. of Faculties
4) Hostel: Id, Address, Name, No_of_seats
5) Exams: Exam_code, Date, Time, Room_no
6) Courses: Course name, Course id, Duration

Description:
● Faculty teaches the students
● Student lives in hostel
● Faculties belong to a department
● Student enrolls in courses
● Department conducts exams
● Department provides courses
● Student appears for exams
● There is one to n relationship between faculty and students, hostel and students, department and faculty, department and courses, department and exam, exam and student.
● There is n to one relationship between student and faculty, faculty and department, students and hostel, courses and department, etc.
● There is n to n relationship between Student and courses

ER Diagram

FACULTY entity attributes: Department, Mobile no., Name, Salary, Faculty_id

STUDENT entity attributes: Pncode, City Name, Street name, Address, ID, Name, Date o Birth, Age, Phone no, Gender

COURSES entity attributes: Course_Name, Course_id, Duration

DEPARTMENTS entity attributes: No. of Faculties, No. of Courses, Name, ID

HOSTEL entity attributes: ID, Address, Name, No.of seats

EXAM entity attributes: Room no., Exam code, Date, Time

Relationships:
- FACULTY — N — BELONGS TO — 1 — DEPARTMENTS
- FACULTY — 1 — TEACHES — N — STUDENT
- STUDENT — N — ENROLLS IN — N — COURSES
- COURSES — N — PROVIDES — 1 — DEPARTMENTS
- STUDENT — N — LIVES IN — 1 — HOSTEL
- STUDENT — N — APPEARS FOR — 1 — EXAM
- DEPARTMENTS — 1 — CONDUCTS — N — EXAM