University Examination Management System

PROBLEM STATEMENT:

- Maintaining student, faculty, course, examination, institute and outcome modules are among the responsibilities of the examination management system.

- Departments are used to separate the exams. According to the institute, every department has a distinct name.

- A list of the courses offered by each department is available. Every course has a course ID, title, department name, and credits that are overseen by the head of the department.

- Every course consists of a collection of papers, each of which has a distinct name and ID that are overseen by the instructors.

- There are laws and regulations pertaining to exams. This has been divided into exterior and internal categories.

- There is a structure, pattern, and marking system for internal exams. There is a structure, pattern, and marking system for external exams.

- The campus and institution keep a unique student ID, name, department, and total number of credit hours obtained by each student who takes the test. 8. Under the direction of the examination controller, exams are held at specified times, locations, and schedules based on department, course ID, date, semester ID, and day.

- The institute's administration keeps track of students' academic grades according to year, department, course, year, semester, ID, and name. The examination officer assigns instructors to tests based on their identification, name, department, time, day, and date.

- The examination management system uses credits and a few other procedures to calculate the total grade, which is based on 30% of internals and 70% of externals.

Attributes

Attributes for departments:

Dept name, Dept_id.

Attributes for courses:

Course name, courses_id.

Attributes for papers:

Paper name, paper_id, semester, syllabus.

Attributes for students:

Student_Name, Student_id, year, semester, course, Department,Institute_id, class.

Attributes for Faculty:

Faculty_name, Faculty_id, department, course, paper.

Attributes for institute:

Institute_id, Institute_name, address, courses, departments

ENTITIES

- **Person:** student, Faculty
- **Place:** campus, class, institute
- **Object:** student academic records
- **Event:** examination, result, retotalling
- **Concept:** grading process, course, department, papers, absentee record

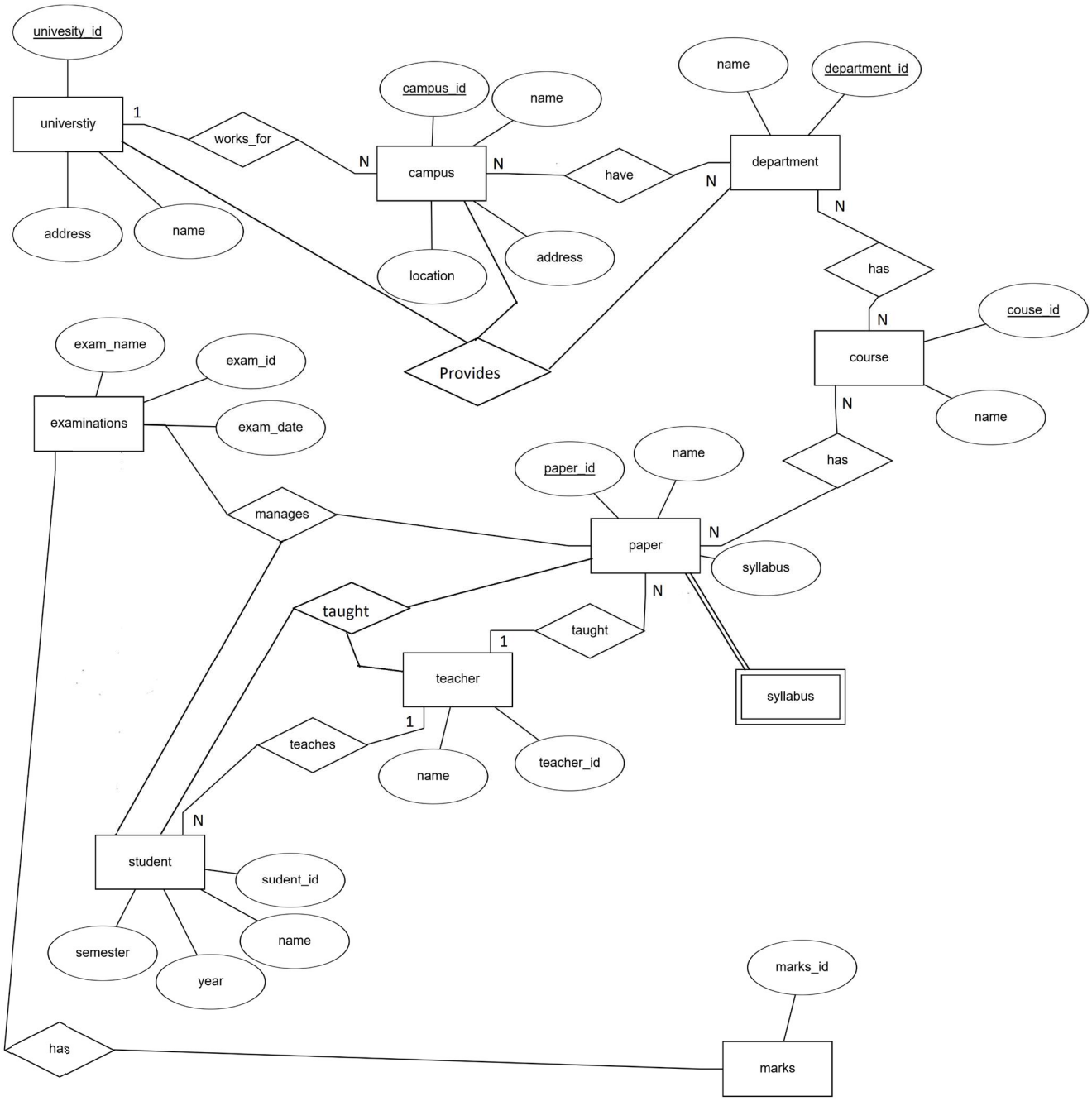
Entity type	Attributes	Type
Student		
	Student_Name	Simple
	Student_Id	Single
	Student_Year	Simple
	Semester	Simple
Teacher		
	Teacher_Name	Simple
	Teacher_Id	Single
Department		
	Department_Name	Simple
	Department_Id	Single
Course		
	course-Name	Simple
	course-Id	Single
Institute		
	institute-Id	Single
	institute-Name	Simple
	institute-Address	Simple
paper		
	paper-Name	Simple
	paper-Id	Single
	paper-syllabus	Simple
campus		
	campus-Id	Single
	campus-Name	Simple
	campus-Address	Complex
	campus-Location	Simple
Examination		
	exam-id	Single
	exam-date	Simple
	exam-name	Simple
Marks		
	mark-id	Single
	student-id	Single
	paper-id	Single
	examination-id	Single
	student-marks	Simple
Class		
	Class-id	Single
	Class-name	Single
	teacher-id	Single
	paper-id	Single
	student-id	Single
University		
	Univercity_id	Single
	Univercity_name	Single
	Univercity_Address	Simple

RELATIONSHIP FOR MY ENTITIES:

Person: Student, teacher.
Place: Campus, class.
Object: Student academic records,institute.
Event: Examination, result, retotalling,marks.
Concept: Grading process, course, department, papers, absentee record.

student_id	teacher_id	student_name	student_year	student_semester
234202	1	Akshat	2023	5
234203	1	Preetham	2023	5
234204	1	Subhas	2023	5
234205	2	Aryan	2023	5
234206	2	Ayush	2023	5
234207	2	B.Pawan	2023	5
234208	2	Bharghav	2023	5
234209	3	Deepak	2023	5
234210	3	Abhiram	2023	5
234211	4	Vardhan	2023	5
234212	4	Adithya	2023	5
234213	4	Gowtham	2023	5
234214	4	Gunti	2023	5
234215	5	Jayvijay	2023	5
234216	5	Jayaraman	2023	5
234217	6	Jevvan	2023	5
234218	6	Rajesh	2023	5
234219	7	Siva sai pavan	2023	5
234220	8	Badrinath	2023	5
234221	8	Durga	2023	5
234223	8	Sri charan	2023	5
234224	8	Smaran	2023	5
234225	8	Prajual	2023	5
234226	9	satvik	2023	5
234227	9	Regal	2023	5
234228	9	Saikumar	2023	5
234229	10	Subharshu	2023	5
234230	10	Sundaram	2023	5
234231	11	SVamshi	2023	5
234232	12	Suryansh	2023	5
234233	12	T.pavan	2023	5

ER-DIAGRAM



This relation is already in 1-NF because This is no multivalued attribute(atomic)

- The key for this table is (student-id,student-name)

- The fds are F= { ac to bde} b,d,e have redundant values so they won't form the key prime attributes are a and c non-prime are b,d,e .checking for partial dependency: no redundancy

- this table is in 2-NF because: every non prime attribute of the relation is fully functionally dependent on each relation key.this table is in 3-NF because: No Transitive Dependency