

Question:

A university registrar's office maintains data about the following entities

- (a) courses, including number, title, credits, syllabus and prerequisites;
- (b) course offerings, including course number, year, semester section number, instructor(s), timings and classroom;
- (c) students, including student-id, name and program; and
- (d) instructors, including identification number, name department and title.

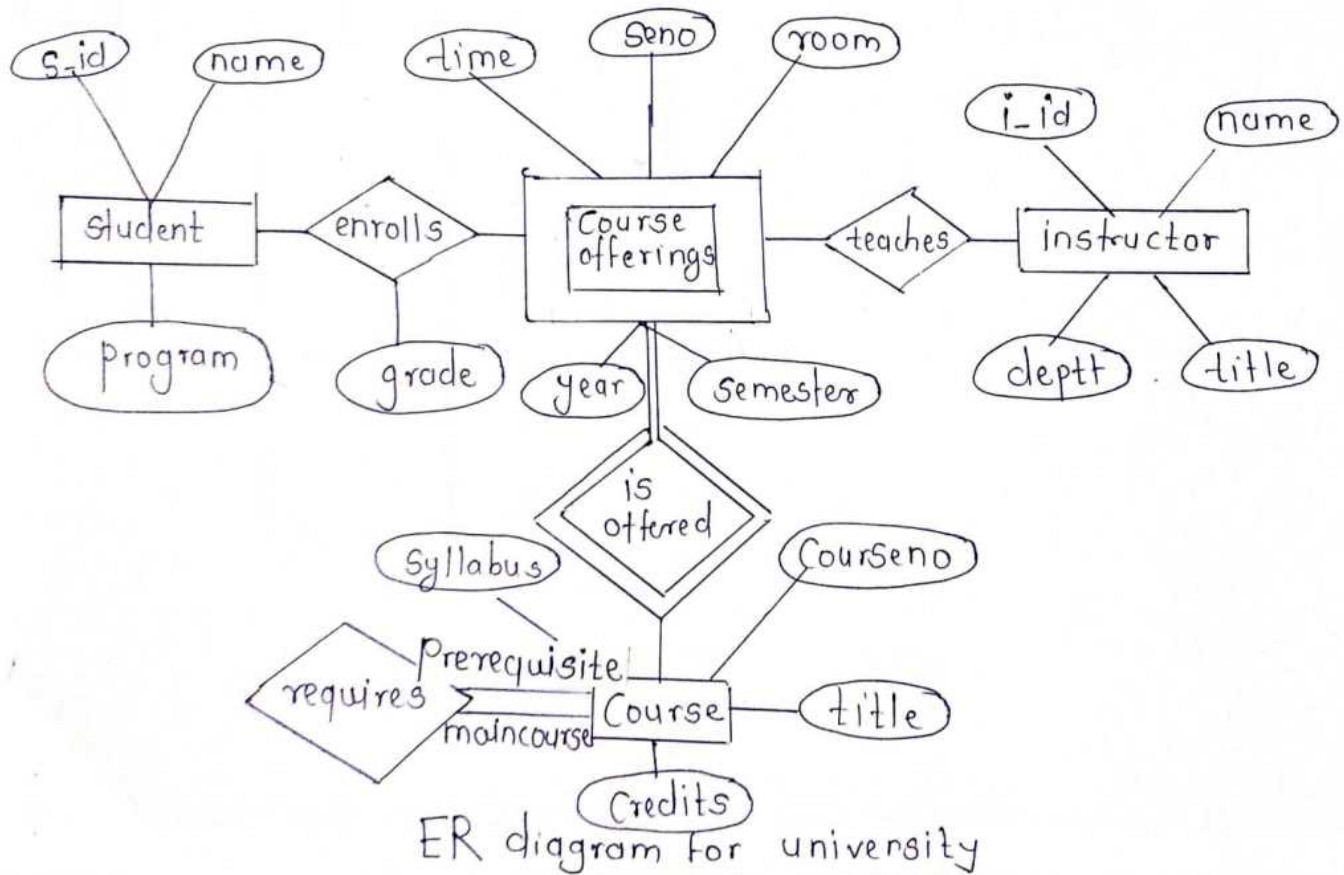
Further the enrollment of students in courses and grades awarded to students in each course they are enrolled for must be appropriately modeled.

Construct an ER diagram for the registrar's office. Document all assumption that you make about the mapping constraints.

Answer:

To create an Entity-Relationship (ER) diagram for the university registrar's office, we need to represent the main entities: students, courses, course offerings, and instructors. Additionally, we'll need to capture the relationships between these entities, as well as any attributes associated with each entity.

Construct an ER diagram for the registrar's office



Related posts:

1. What is database management system (DBMS) ? What are the tasks performed by users in DBMS ?
2. What are the advantages and disadvantages of DBMS ?
3. What do you understand by database users ? Describe the different types of database users.
4. Who are data administrators ? What are the functions of database administrator ?OR Discuss the role of database administrator.
5. What is data abstraction ? Explain different levels of abstraction.

6. Explain the differences between physical level, conceptual level and view level of data abstraction.
7. Explain the difference between database management system (DBMS) and file system.
8. Discuss the architecture of DBMS. What are the types of DBMS architecture ?
9. What are data models ? Briefly explain different types of data models.
10. Describe data schema and instances.
11. Describe data independence with its types
12. Describe the classification of database language. Which type of language is SQL ?
13. Explain DBMS interfaces. What are the various DBMS interfaces ?
14. What is ER model ? What are the elements of ER model ? What are the notations of ER diagram ?
15. What do you understand by attributes and domain ? Explain various types of attributes used in conceptual data model.
16. Construct an ER diagram for University system.
17. Explain the primary key, super key, foreign key and candidate key with example. OR Define key. Explain various types of keys.
18. What do you mean by a key to the relation ? Explain the differences between super key, candidate key and primary key.
19. Explain generalization, specialization and aggregation. OR Compare generalization, specialization and aggregation with suitable examples.
20. What is Unified Modeling Language ? Explain different types of UML.
21. What is relational model ? Explain with example.
22. Explain constraints and its types.
23. Consider the following relations:
24. What are the additional operations in relational algebra ?
25. Explain integrity constraints.
26. Explain the following constraints : i. Entity integrity constraint. ii. Referential integrity

Construct an ER diagram for the registrar's office

constraint. iii. Domain constraint.

27. Describe mapping constraints with its types.
28. Explain how a database is modified in SQL. OR Explain database modification.
29. Discuss join and types with suitable example. Define join. Explain different types of join.
30. Describe the SQL set operations