

Unit 3 - Functional Dependency and Normalization

1. Explain domain constraints.
2. Explain referential integrity with example.
3. Compare trigger and assertion
4. What is functional dependency?
5. Explain different types of functional dependency with example.
6. Explain 'Closure of set of functional dependency'.
7. Write note on 'Armstrong's Axioms'
8. Explain Canonical Cover.
9. Find closure of set of functional dependency (F^+) and canonical cover (F_c) from given set of functional dependencies (F) on schema (A, B, C)
 $F = \{ A \rightarrow BC, B \rightarrow C, A \rightarrow B, AB \rightarrow C \}$
10. Explain different SQL statements used for authorization.
11. What is normalization?
12. Explain 1NF with example.
13. Explain 2NF with example.
14. Explain 3NF with example.
15. Explain BCNF with example.
16. Explain 4NF with example
17. Explain 5NF with example
18. Compare Normalization with Denormalization.
19. Explain Fourth Normal Form (4NF). Convert the following relationship into 4NF

Movie	Star	Producer
Once Upon a Time	Julie Garland	Alfred Brown
Once Upon a Time	Mickey Rooney	Alfred Brown
Once Upon a Time	Julie Garland	Muriel
Once Upon a Time	Mickey Rooney	Muriel
Moonlight	Humphrey Bogart	Alfred Brown
Moonlight	Julie Garland	Alfred Brown

20. Explain Fifth Normal Form (5NF). Convert the following relationship into 5NF.

Buyer	Product	Company
Chris	jeans	Levi
Chris	jeans	Wrangler
Chris	shirts	Levi
Lori	jeans	Levi

21. Apply different applicable normal forms on the schema given in unnormalized form.

Grade_report (StudNo, StudName, Branch, Mentor, CourseNo, Ctitle, InstructName, InstructLocation, Grade)

22. Apply different applicable normal forms on the schema given in unnormalized form.

video(title,director,serial)

customer(name,addr,memberno)

hire(memberno,serial,date)

23. Apply different applicable normal forms on the schema given in unnormalized form.

Employee (Employee_ID, Employee_Name, City, Department_No, Department_Name, Salary_Slip_no, Salary))