

Data Modeling

Anatomy of A Data Model- Questions

Dr. Narjis Mezaal Shati



Data Modeling

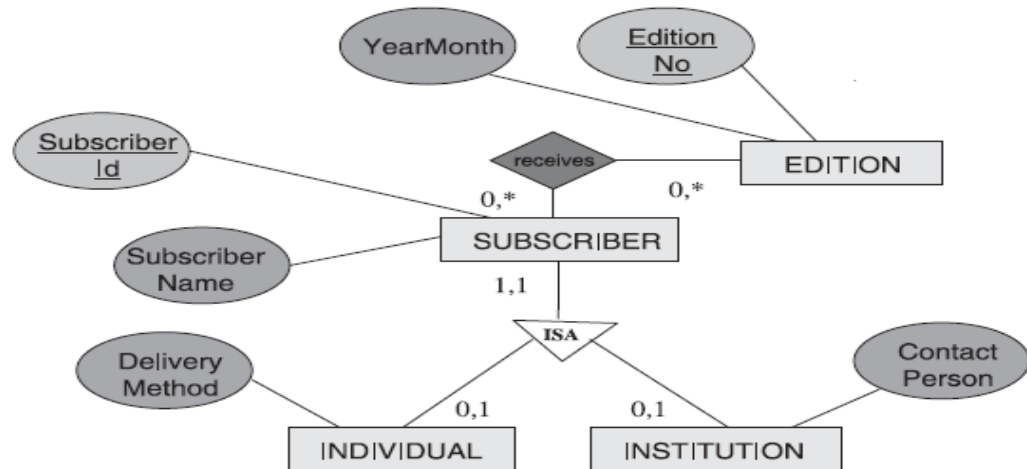
Anatomy of A Data Model- Questions

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3-Questions

Q1/ What are the steps of the examination and description of a data model?

Q2/ Review the following conceptual data model.



A watercolor-style background featuring a landscape with several wind turbines. The sky is painted with soft, blended colors of blue, orange, and yellow, suggesting a sunrise or sunset. The ground is depicted with green and yellow washes, representing grass and fields. The overall style is artistic and painterly.

“ 3-Questions

Q3/ Review the conceptual data model that obtained from the following relational notation.

PROJECT (ProjectCode, ProjectTitle, ProjectManager, ProjectBudget)

EMPLOYEE (EmployeeNo, EmployeeName)

PRO_EMP (Project Code, EmployeeNo, HourlyRate)

Foreign key: Project Code REFERENCES PROJECT

Foreign key: EmployeeNo REFERENCES EMPLOYEE

3-Questions

Q4/ Review the conceptual data model that obtained from the following relational model.

PROJECT

Project Code	Project Title	Project Manager	Project Budget
PC010	Pensions System	M Phillips	24500
PC045	Salaries System	H Martin	17400
PC064	HR System	K Lewis	12250

PRO_EMP

Project Code	Employee No.	Hourly Rate
PC010	S10001	22.00
PC010	S10030	18.50
PC010	S21010	21.00
PC045	S10010	21.75
PC045	S10001	18.00
PC045	S31002	25.50
PC045	S13210	17.00
064	S31002	23.25
PC064	S21010	17.50
PC064	S10034	16.50

EMPLOYEE

Employee No.	Employee Name
S10001	A Smith
S10030	L Jones
S21010	P Lewis
S10010	B Jones



3-Questions

Q5/ Discuss Generalization/ Specialization.

Q6/ Draw diagram illustrate constraining the data model from information requirements.

Q7/ Illustrate the following by drawing diagram:
“From information requirements to conceptual model ”

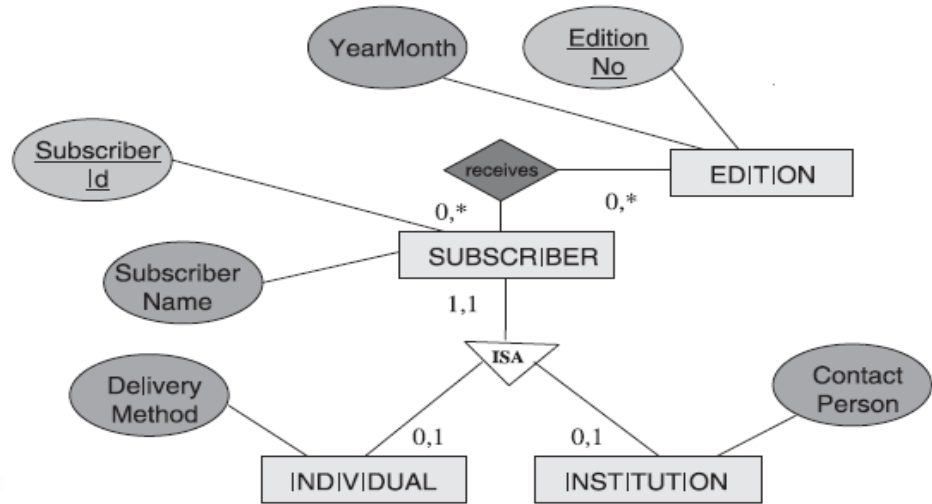
Q8/ Give an idea of database system and then create the conceptual data model for this idea.

3-Questions

Q9/ Discuss logical model components.

Q10/ List Physical model components.

Q11/ Transform the following conceptual data model into a logical data model.



3-Questions

Q12/ Transform the following conceptual data model into a logical data model.



3-Questions

Q13/ Give the conceptual data model for the following relational data model.

PROJECT

Project Code	Project Title	Project Manager	Project Budget
PC010	Pensions System	M Phillips	24500
PC045	Salaries System	H Martin	17400
PC064	HR System	K Lewis	12250

PRO_EMP

Project Code	Employee No.	Hourly Rate
PC010	S10001	22.00
PC010	S10030	18.50
PC010	S21010	21.00
PC045	S10010	21.75
PC045	S10001	18.00
PC045	S31002	25.50
PC045	S13210	17.00
064	S31002	23.25
PC064	S21010	17.50
PC064	S10034	16.50

EMPLOYEE

Employee No.	Employee Name
S10001	A Smith
S10030	L Jones
S21010	P Lewis
S10010	B Jones



3-Questions

Q14/ Give the conceptual data model for the following relational notation.

PROJECT (ProjectCode, ProjectTitle, ProjectManager, ProjectBudget)

EMPLOYEE (EmployeeNo, EmployeeName)

PRO_EMP (Project Code, EmployeeNo, HourlyRate)

Foreign key: Project Code REFERENCES PROJECT

Foreign key: EmployeeNo REFERENCES EMPLOYEE



Thanks!
Any questions?

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