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Database Systems
## Concepts, Languages and Architectures

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Press the 'return' or 'enter' key to continue . . .
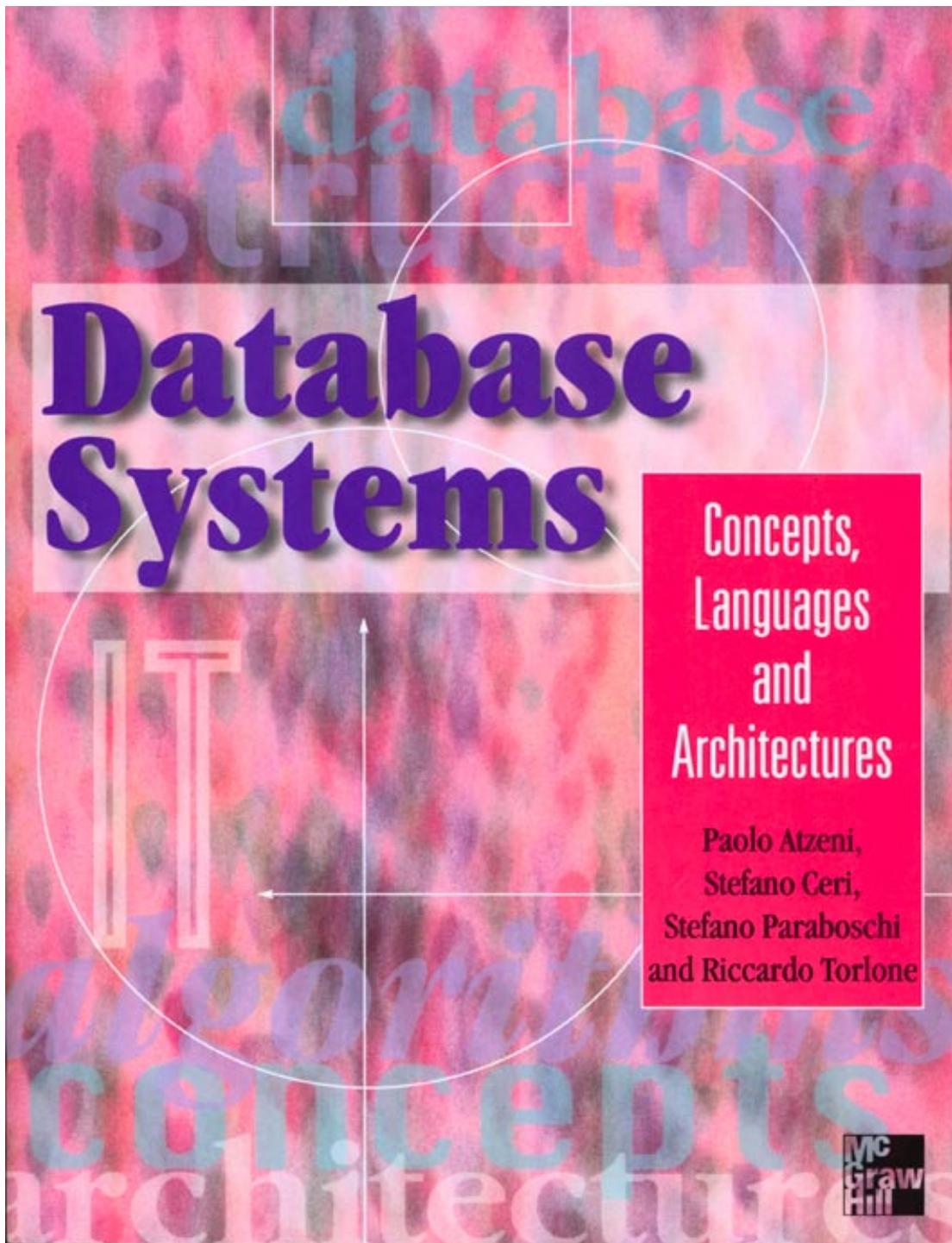
Chapter 7

Logical design

Removing generalizations

- The relational model does not allow the direct representation of generalizations of the E-R model.

- We need, therefore, to transform these constructs into other constructs that are easier to translate: entities and relationships.

Example of a schema with generalization
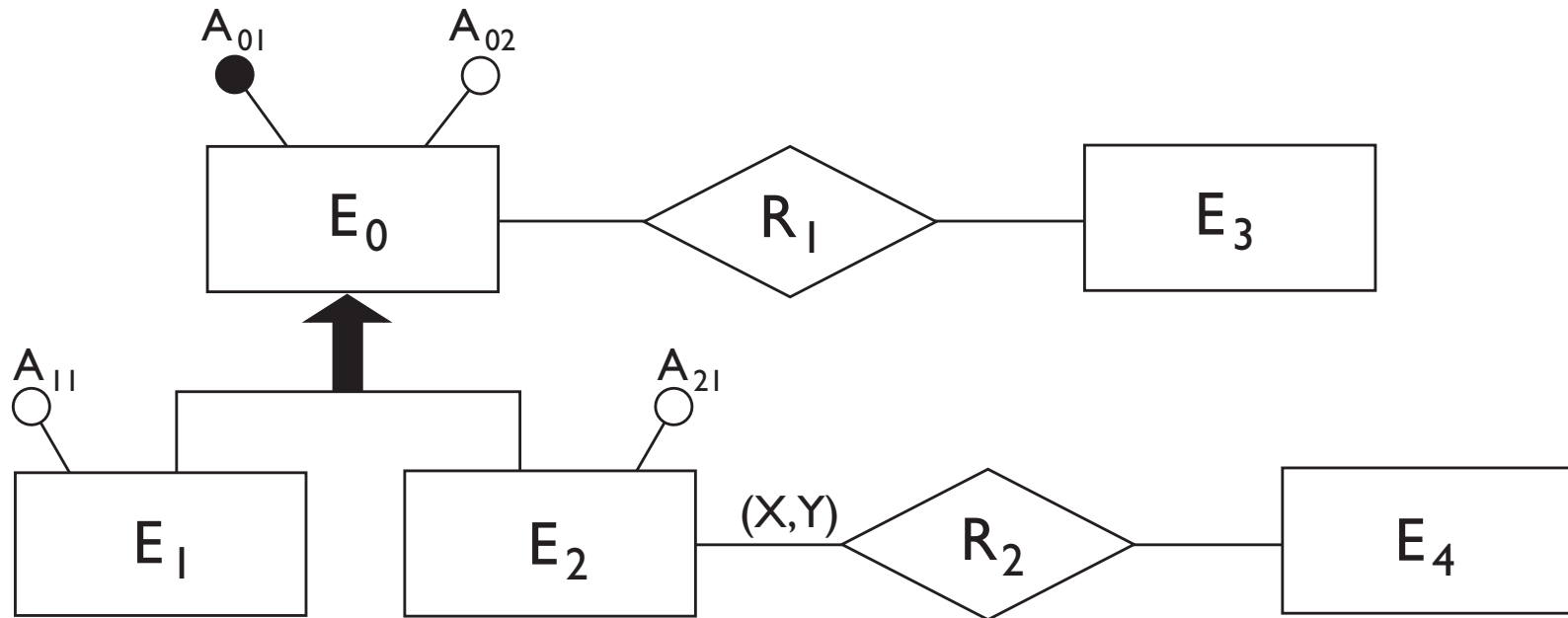
Possible restructurings of the previous schema
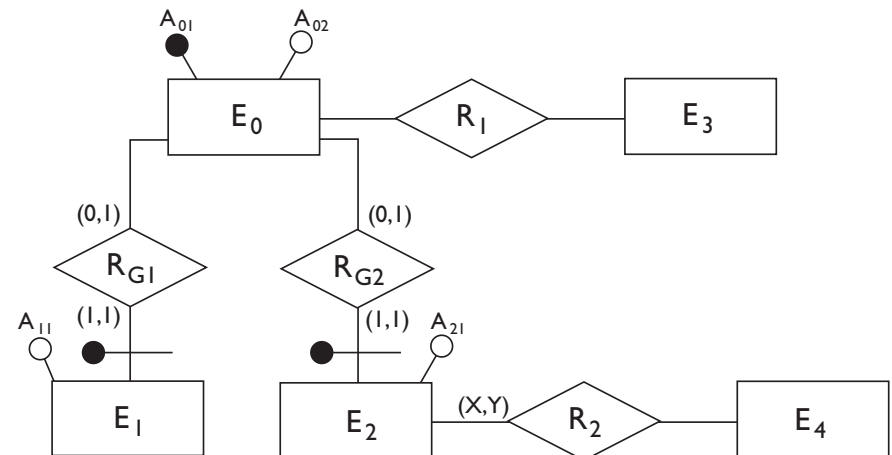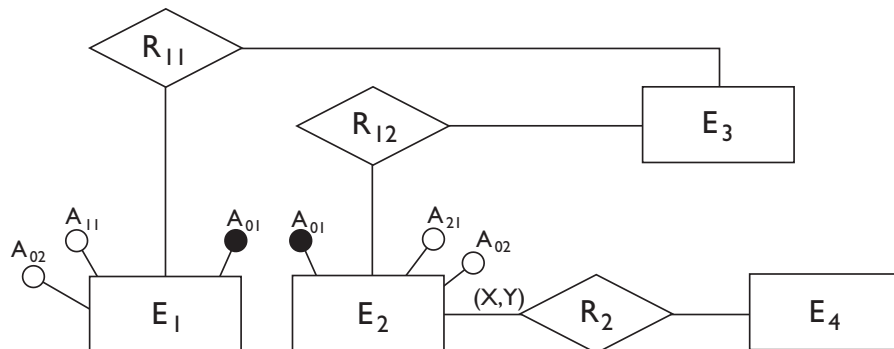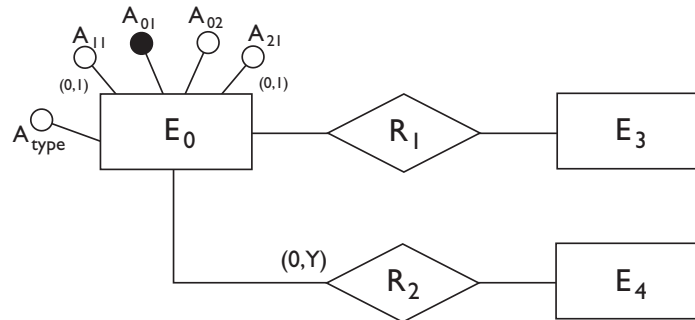
General rules about generalization removal

- Option 1 is useful when the operations involve the occurrences and the attributes of E_0, E_1 and E_2 more or less in the same way.

- Option 2 is possible only if the generalization is total and is useful when there are operations that refer only to occurrences of E_1 or of E_2, and so they make distinctions between these entities.

- Option 3 is useful when the generalization is not total and the operations refer to either occurrences and attributes of E_1 (E_2) or of E_0, and therefore make distinctions between child and parent entities.

- The various options can be combined.

Possible restructuring of the previous schema