

Differences between Table per class Table per subclass Table per concreteclass

HIBERNATE TUTORIALS

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Table per class vs Table per subclass vs Table per concreteclass

To understand better, it is summarized all the differences between three hierarchical models of Hibernate.

1. **Table Per Class**
2. **Table Per Subclass**
3. **Table Per Concreteclass**

Introduction notes for the above three models is available at [Inheritance \(Hierarchical\) Mapping Tutorial](#)

	TABLE-PER-CLASS	TABLE-PER-SUBCLASS	TABLE-PER-CONCRETECLASS
NO. TABLES CREATED FOR CLASSES INVOLVED IN HIERARCHY	Only one table is created for all the classes	One table for each class is created	One table for each concrete class (subclass) is created but not of super classes
EXTRA FIELD/KEY	One Discriminator field is used	Foreign key is maintained between the tables	Foreign key is not maintained
SPECIAL FEATURE	Super class cannot be abstract or interface	Super class cannot be abstract or interface	Super class can be also an abstract or interface

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XML MAPPING ELEMENT	<subclass>	<joined-subclass>	<union-subclass>
POLYMORPHIC SUPPORT BETWEEN ENTITIES	Provides good support	Provides poor support	Provides poor support
NULL FIELDS	Some columns of subclasses will be null	Need not be null	Need not be null
ADVANTAGE	Gives maximum performance even for the classes involved in deep hierarchy	Changes in a single super class does not demand complex changes in database	Simple style to implement inheritance mapping
DISADVANTAGE	Requires either columns to be added or removed when the members in the hierarchy change	For deep hierarchy, it may give poor performance	Members of super class are placed in each subclass and thereby any change in the super class should be reflected in each subclass

Limitations:

1. Hibernate does not allow to write all the three elements <subclass>, <joined-subclass> and <union-subclass> mappings in one root <class> element.
2. It is allowed to place both the table-per-class and table-per-subclass models under one <class> element.
3. It is allowed to write all the three elements <subclass>, <joined-subclass> and <union-subclass> mappings in separate mapping files under one <hibernate-mapping>.
4. In table-per-class, columns declared by the subclasses should not have the constraint NOT NULL.

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- ◀ Table-per-class vs Table-per-concreteclass
- ◀ Table-per-class vs Table-per-subclass
- ◀ Table-per-subclass vs Table-per-concreteclass

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1. Rajeev
December 21, 2015 at 2:18 pm

Great explanation.....the best way to understand Inheritance mapping.

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