**ERD 1: Transform the following ERDs to Relational Schemas.**

Please note that Posting is a weak entity; thus, Posting Date/Time should have been double-underlined.

****

**SITE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SITE\_ID** | SITE\_NAME | SITE\_PURPOSE | SITE\_ADMINISTRATOR | SITE\_CREATION\_DATE |

**ACCOUNT**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ACCOUNT\_ID** | USERNAME | PASSWORD | DATE\_CREATED | DATE\_TERMINATED | DATE\_LAST\_USED | **PERSON\_ID** | **SITE\_ID** |

One-to-Many Relationship: Primary key on the one side becomes a foreign key on the many side.

**POSTING**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ACCOUNT\_ID** | **POSTING\_DATE** | **RESPONSE\_ACCOUNT\_ID** | **RESPOND\_DATE** | CONTENT | INVISIBLE\_DATE |

**Composite primary key**

Weak Entities Primary key composed of:

Partial identifier of weak entity

Primary key of identifying relation (strong entity)

Unary Relationship:

One-to-Many Relationship: Recursive foreign key in the same relation

**READ**

|  |  |  |  |
| --- | --- | --- | --- |
| **POST\_ACCOUNT\_ID** | **POSTING\_DATE** | **ACCOUNT\_ID** | READ\_DATETIME |

**Composite primary key**

Associative Entities:

Identifier Not Assigned: Default primary key for the association relation is composed of the primary keys of the two entities

**PERSON**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PERSON\_ID** | NICKNAME | DATE\_JOINED | PERSON\_NAME | TWITTER | FACEBOOK | SMS\_NUMBER |

**PERSON\_STATUS**

|  |  |
| --- | --- |
| **PERSON\_ID** | **STATUS** |

**Composite primary key**

Multivalued Attribute: Becomes a separate relation with a foreign key taken from the superior entity

**ERD 2: Transform the following ERDs to Relational Schemas.**

Please note that Review and Address are weak entities; thus, ReviewID and AddressID should have been double-underlined.



**PERSON**

|  |
| --- |
| **CUSTOMER\_ID** |

**PERSON\_INTEREST**

|  |  |
| --- | --- |
| **CUSTOMER\_ID** | **INTEREST** |

**Composite primary key**

Multivalued Attribute: Becomes a separate relation with a foreign key taken from the superior entity

**PERSON\_HOBBY**

|  |  |
| --- | --- |
| **CUSTOMER\_ID** | **HOBBY** |

**Composite primary key**

Multivalued Attribute: Becomes a separate relation with a foreign key taken from the superior entity

**PERSON\_ACTIVITY**

|  |  |
| --- | --- |
| **CUSTOMER\_ID** | **ACTIVITY** |

**Composite primary key**

Multivalued Attribute: Becomes a separate relation with a foreign key taken from the superior entity

**ADDRESS**

|  |  |  |
| --- | --- | --- |
| **ADDRESS\_ID** | **CUSTOMER\_ID** | ADDRESS |

**Composite primary key**

Weak Entities Primary key composed of:

Partial identifier of weak entity

Primary key of identifying relation (strong entity)

**PRODUCT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PRODUCT\_ID** | DESCRIPTION | STD\_PRICE | CATEGORY | COLOR |

**PRODUCT\_BASE**

|  |  |
| --- | --- |
| **PRODUCT\_BASE\_ID** | **PRODUCT\_ID** |

**Composite primary key**

Unary Relationship:

Many-to-Many Relationship: One for an associative relation in which the primary key has two attributes, both taken from the primary key of the entity

**REVIEW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **REVIEW\_ID** | **PRODUCT\_ID** | **ORDER\_ID** | REVIEW\_TEXT | RATING |

**Composite primary key**

Weak Entities Primary key composed of:

Partial identifier of weak entity

Primary key of identifying relation (strong entity)

**READ**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **READ\_ID** | **PRODUCT\_ID** | **ORDER\_ID** | **REVIEW\_ID** | **CUSTOMER\_ID** |

One-to-Many Relationship: Primary key on the one side becomes a foreign key on the many side.

**VIEW**

|  |  |  |  |
| --- | --- | --- | --- |
| **VIEW\_ID** | **PRODUCT\_ID** | **CUSTOMER\_ID** | DATE\_OF\_VIEW |

One-to-Many Relationship: Primary key on the one side becomes a foreign key on the many side.

**ORDER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ORDER\_ID** | **ADDR\_CUST\_ID** | **ADDRESS\_ID** | **CUSTOMER\_ID** | ORDER\_DATE | ORDER\_MEDIA |

Associative Entities: Identifier Assigned:

One-to-Many Relationship: Primary key on the one side becomes a foreign key on the many side.

**LINE\_ITEM**

|  |  |  |
| --- | --- | --- |
| **ORDER\_ID** | **PRODUCT\_ID** | QUANTITY\_ORDERED |

**Composite primary key**

Associative Entities:

Identifier Not Assigned: Default primary key for the association relation is composed of the primary keys of the two entities.