**Lại Trung Minh Đức – SE62220**

**Class: IA1161**

Introduction to Databases – DBI202

Instructor: Mr.Nguyễn Trọng Tài

**DATABASE SCHEMa**

DATABASE ANALYSIS FOR ELECTROLUX.vn

1. **RELATIONAL DATA MODEL**

Admin(

UserID NCHAR(10),

Password NVARCHAR(60))

Articles(

ID NCHAR(10),

Title NVARCHAR(max),

Contents NTEXT,

Author NCHAR(10),

PublishedDate datetime,

Status TINYINT,

ArticleCategory INT,

Avatar NVARCHAR(max))

ArticlesCategory(

ID INT,

Name NVARCHAR(50))

Attributes(

ID INT,

Name NVARCHAR(50))

CategoryHasAttributes(

CategoryID INT,

AttributesID INT)

CategoryHasFeatures(

CategoryID INT,

FeaturesID INT)

Features(

ID INT,

FeatureName NVARCHAR(50),

FeatureContent NTEXT,

ImageURL text)

Footer(

Name NCHAR(10),

URL NCHAR(10),

Position NCHAR(10))

Menu(

ID INT,

Name NVARCHAR(50),

URL text,

ParentID INT)

PartnersSeller(

PartnerID INT,

Name NVARCHAR(50),

Address NTEXT,

PhoneNo NCHAR(20))

Product(

Model NCHAR(10),

CategoryID INT,

SubCategoryID INT,

ImageURL text)

ProductCategory(

CategoryID INT,

Name NVARCHAR(50),

ParentID INT)

ProductHasFeatures(

ID INT,

ProductModel NCHAR(10),

CategoryID INT,

FeaturesID INT)

ProductIsSoldBy(

ProductModel NCHAR(10),

PartnersID INT)

ProductSpecification(

ID INT,

ProductModel NCHAR(10),

AttributeID INT,

CategoryID INT,

Value NTEXT)

Reviews(

ID INT,

Title NVARCHAR(max),

Name NVARCHAR(50),

Email NVARCHAR(50),

Contents NTEXT,

RevCategoryID INT,

Model NCHAR(10),

TimeSubmitted DATETIME,

Status INT)

ReviewsCategory(

ID INT,

CategoryName NVARCHAR(50),

Status TINYINT)

**PROVE THE RELATIONAL DATABASE SCHEMA IN 3NF**

As we can see, every non-key attribute of these relations are fully functional dependencies to the key 🡪 2NF

1. **LIST OF CONSTRAITS** 
   * + - Title in table Article is UNIQUE
       - CategoryID and SubCategoryID in Product must be different.
       - SubCategoryID in Product can be NULL
       - CategoryID in Product must be a FOREIGN KEY of Product which REFERENCE to the ID of ProductCategory
       - In ProductSpecification, ProductModel is FOREIGN KEY REFERENCE to Model of Product. CategoryID and AttributeID are FOREIGN KEYS REFERENCE to CategoryID and AttributeID of CategoryHasAttributes. And the CategoryID must be the same with CategoryID of the Model in Product.
       - ……
2. **DATABASE DIAGRAMS**
   1. **FOR MANAGING PRODUCTS**

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* 1. **FOR MANAGING OTHERS**

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