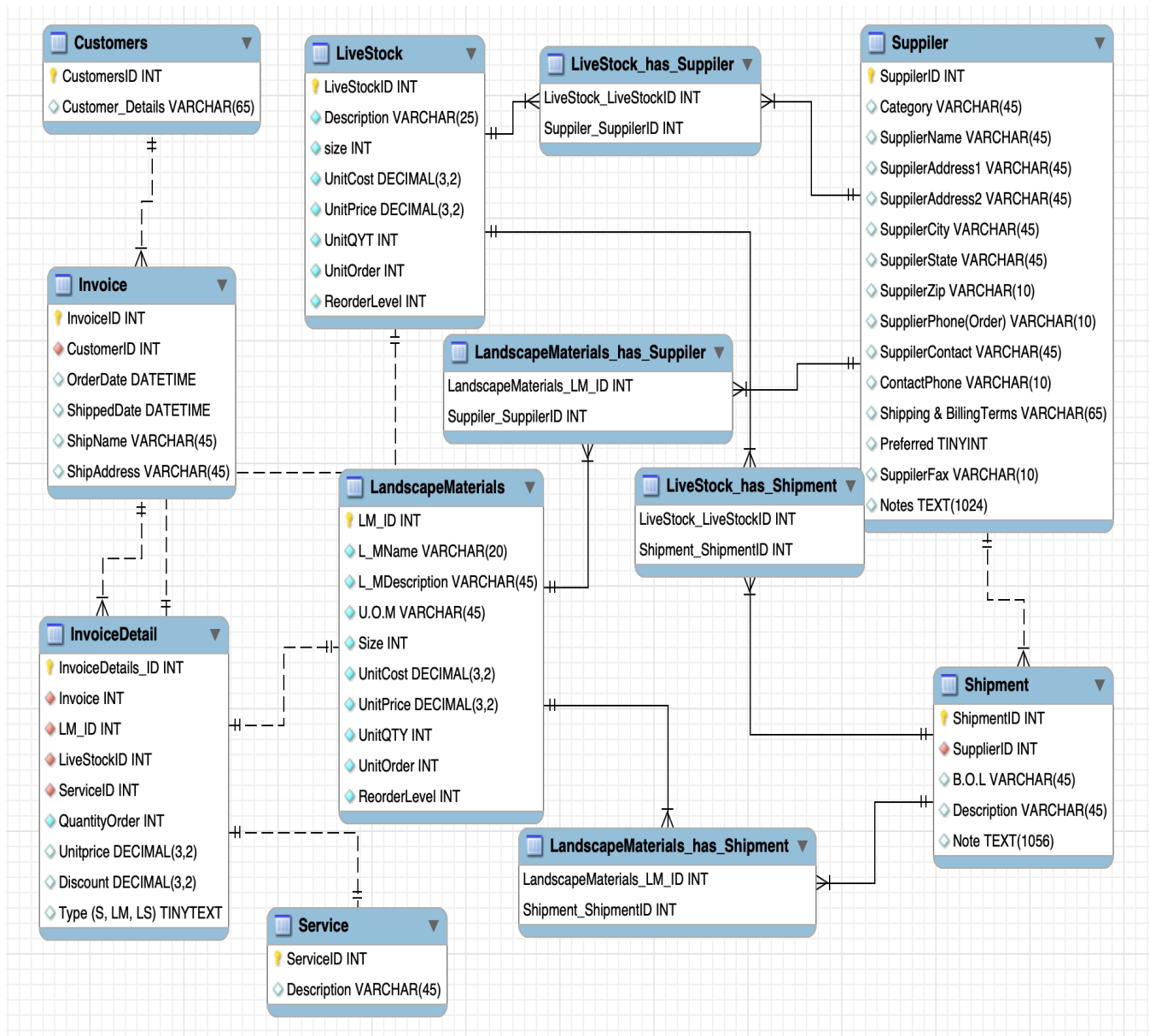


Name: Chakrya Ros
Homework 4 : Case Study

Data Modal of Eden Landscape



Physical Data Model

-- MySQL Workbench Forward Engineering

```
SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0;
SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0;
SET @OLD_SQL_MODE=@@SQL_MODE,
SQL_MODE='ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO_ZERO_DATE,ERROR_FOR_DIVISION_BY_ZERO,NO_ENGINE_SUBSTITUTION';
```

```
-----
-- Schema Eden_landscape
-----
```

```
-----
-- Schema Eden_landscape
-----
```

```
CREATE SCHEMA IF NOT EXISTS `Eden_landscape` DEFAULT CHARACTER SET utf8 ;
USE `Eden_landscape` ;
```

```
-----
-- Table `Eden_landscape`.`Suppiler`
-----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`Suppiler` (
  `SuppilerID` INT NOT NULL AUTO_INCREMENT,
  `Category` VARCHAR(45) NULL,
  `SupplierName` VARCHAR(45) NULL,
  `SuppilerAddress1` VARCHAR(45) NULL,
  `SuppilerAddress2` VARCHAR(45) NULL,
  `SuppilerCity` VARCHAR(45) NULL,
  `SuppilerState` VARCHAR(45) NULL,
  `SuppilerZip` VARCHAR(10) NULL,
  `SupplierPhone(Order)` VARCHAR(10) NULL,
  `SuppilerContact` VARCHAR(45) NULL,
  `ContactPhone` VARCHAR(10) NULL,
  `Shipping & BillingTerms` VARCHAR(65) NULL,
  `Preferred` TINYINT NULL,
  `SuppilerFax` VARCHAR(10) NULL,
  `Notes` TEXT(1024) NULL,
  PRIMARY KEY (`SuppilerID`))
ENGINE = InnoDB;
```

-- Table `Eden_landscape`.`LandscapeMaterials`

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`LandscapeMaterials` (  
  `LM_ID` INT NOT NULL AUTO_INCREMENT,  
  `L_MName` VARCHAR(20) NOT NULL,  
  `L_MDescription` VARCHAR(45) NOT NULL,  
  `U.O.M` VARCHAR(45) NOT NULL,  
  `Size` INT NOT NULL,  
  `UnitCost` DECIMAL(3,2) NOT NULL,  
  `UnitPrice` DECIMAL(3,2) NOT NULL,  
  `UnitQTY` INT NOT NULL,  
  `UnitOrder` INT NOT NULL,  
  `ReorderLevel` INT NOT NULL,  
  PRIMARY KEY (`LM_ID`))  
ENGINE = InnoDB;
```

-- Table `Eden_landscape`.`LiveStock`

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`LiveStock` (  
  `LiveStockID` INT NOT NULL AUTO_INCREMENT,  
  `Description` VARCHAR(25) NOT NULL,  
  `size` INT NOT NULL,  
  `UnitCost` DECIMAL(3,2) NOT NULL,  
  `UnitPrice` DECIMAL(3,2) NOT NULL,  
  `UnitQYT` INT NOT NULL,  
  `UnitOrder` INT NOT NULL,  
  `ReorderLevel` INT NOT NULL,  
  PRIMARY KEY (`LiveStockID`))  
ENGINE = InnoDB;
```

-- Table `Eden_landscape`.`Customers`

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`Customers` (  
  `CustomersID` INT NOT NULL AUTO_INCREMENT,  
  `Customer_Details` VARCHAR(65) NULL,  
  PRIMARY KEY (`CustomersID`))  
ENGINE = InnoDB;
```

```
-- -----  
-- Table `Eden_landscape`.`Invoice`  
-- -----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`Invoice` (  
  `InvoiceID` INT NOT NULL,  
  `CustomerID` INT NOT NULL,  
  `OrderDate` DATETIME NULL,  
  `ShippedDate` DATETIME NULL,  
  `ShipName` VARCHAR(45) NULL,  
  `ShipAddress` VARCHAR(45) NULL,  
  PRIMARY KEY (`InvoiceID`),  
  INDEX `customerID_idx` (`CustomerID` ASC) VISIBLE,  
  CONSTRAINT `customerID`  
    FOREIGN KEY (`CustomerID`)  
      REFERENCES `Eden_landscape`.`Customers` (`CustomersID`)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION)  
ENGINE = InnoDB;
```

```
-- -----  
-- Table `Eden_landscape`.`Service`  
-- -----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`Service` (  
  `ServiceID` INT NOT NULL AUTO_INCREMENT,  
  `Description` VARCHAR(45) NULL,  
  PRIMARY KEY (`ServiceID`))  
ENGINE = InnoDB;
```

```
-- -----  
-- Table `Eden_landscape`.`InvoiceDetail`  
-- -----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`InvoiceDetail` (  
  `InvoiceDetails_ID` INT NOT NULL,  
  `Invoice` INT NOT NULL,  
  `LM_ID` INT NOT NULL,  
  `LiveStockID` INT NOT NULL,  
  `ServiceID` INT NOT NULL,  
  `QuantityOrder` INT NOT NULL,  
  `Unitprice` DECIMAL(3,2) NULL,  
  `Discount` DECIMAL(3,2) NULL,
```

```

`Type` (S, LM, LS) TINYTEXT NULL,
PRIMARY KEY (`InvoiceDetails_ID`),
INDEX `InvoiceID_idx` (`Invoice` ASC) VISIBLE,
INDEX `LiveStockID_idx` (`LiveStockID` ASC) VISIBLE,
INDEX `LM_ID_idx` (`LM_ID` ASC) VISIBLE,
INDEX `ServiceID_idx` (`ServiceID` ASC) VISIBLE,
CONSTRAINT `InvoiceID`
  FOREIGN KEY (`Invoice`)
  REFERENCES `Eden_landscape`.`Invoice` (`InvoiceID`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `LiveStockID`
  FOREIGN KEY (`LiveStockID`)
  REFERENCES `Eden_landscape`.`LiveStock` (`LiveStockID`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `LM_ID`
  FOREIGN KEY (`LM_ID`)
  REFERENCES `Eden_landscape`.`LandscapeMaterials` (`LM_ID`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `ServiceID`
  FOREIGN KEY (`ServiceID`)
  REFERENCES `Eden_landscape`.`Service` (`ServiceID`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

-----
-- Table `Eden_landscape`.`Shipment`
-----

```

```

CREATE TABLE IF NOT EXISTS `Eden_landscape`.`Shipment` (
  `ShipmentID` INT UNSIGNED NOT NULL AUTO_INCREMENT,
  `SupplierID` INT NOT NULL,
  `B.O.L` VARCHAR(45) NULL,
  `Description` VARCHAR(45) NULL,
  `Note` TEXT(1056) NULL,
  PRIMARY KEY (`ShipmentID`),
  INDEX `SupplierID_idx` (`SupplierID` ASC) VISIBLE,
  CONSTRAINT `SupplierID`
    FOREIGN KEY (`SupplierID`)
    REFERENCES `Eden_landscape`.`Supplier` (`SupplierID`)
    ON DELETE NO ACTION

```

```
ON UPDATE NO ACTION)
ENGINE = InnoDB;
```

```
-- Table `Eden_landscape`.`LiveStock_has_Supplier`
-----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`LiveStock_has_Supplier` (
  `LiveStock_LiveStockID` INT NOT NULL,
  `Supplier_SupplierID` INT NOT NULL,
  PRIMARY KEY (`LiveStock_LiveStockID`, `Supplier_SupplierID`),
  INDEX `fk_LiveStock_has_Supplier_Supplier1_idx` (`Supplier_SupplierID` ASC) VISIBLE,
  INDEX `fk_LiveStock_has_Supplier_LiveStock1_idx` (`LiveStock_LiveStockID` ASC) VISIBLE,
  CONSTRAINT `fk_LiveStock_has_Supplier_LiveStock1`
    FOREIGN KEY (`LiveStock_LiveStockID`)
      REFERENCES `Eden_landscape`.`LiveStock` (`LiveStockID`)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
  CONSTRAINT `fk_LiveStock_has_Supplier_Supplier1`
    FOREIGN KEY (`Supplier_SupplierID`)
      REFERENCES `Eden_landscape`.`Supplier` (`SupplierID`)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION)
ENGINE = InnoDB;
```

```
-- Table `Eden_landscape`.`LiveStock_has_Shipment`
-----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`LiveStock_has_Shipment` (
  `LiveStock_LiveStockID` INT NOT NULL,
  `Shipment_ShipmentID` INT UNSIGNED NOT NULL,
  PRIMARY KEY (`LiveStock_LiveStockID`, `Shipment_ShipmentID`),
  INDEX `fk_LiveStock_has_Shipment_Shipment1_idx` (`Shipment_ShipmentID` ASC) VISIBLE,
  INDEX `fk_LiveStock_has_Shipment_LiveStock1_idx` (`LiveStock_LiveStockID` ASC) VISIBLE,
  CONSTRAINT `fk_LiveStock_has_Shipment_LiveStock1`
    FOREIGN KEY (`LiveStock_LiveStockID`)
      REFERENCES `Eden_landscape`.`LiveStock` (`LiveStockID`)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
  CONSTRAINT `fk_LiveStock_has_Shipment_Shipment1`
    FOREIGN KEY (`Shipment_ShipmentID`)
      REFERENCES `Eden_landscape`.`Shipment` (`ShipmentID`)
        ON DELETE NO ACTION
```

```
ON UPDATE NO ACTION)
ENGINE = InnoDB;
```

```
-----
-- Table `Eden_landscape`.`LandscapeMaterials_has_Supplier`
-----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`LandscapeMaterials_has_Supplier` (
  `LandscapeMaterials_LM_ID` INT NOT NULL,
  `Supplier_SupplierID` INT NOT NULL,
  PRIMARY KEY (`LandscapeMaterials_LM_ID`, `Supplier_SupplierID`),
  INDEX `fk_LandscapeMaterials_has_Supplier_Supplier1_idx` (`Supplier_SupplierID` ASC)
  VISIBLE,
  INDEX `fk_LandscapeMaterials_has_Supplier_LandscapeMaterials1_idx`
  (`LandscapeMaterials_LM_ID` ASC) VISIBLE,
  CONSTRAINT `fk_LandscapeMaterials_has_Supplier_LandscapeMaterials1`
  FOREIGN KEY (`LandscapeMaterials_LM_ID`)
    REFERENCES `Eden_landscape`.`LandscapeMaterials` (`LM_ID`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT `fk_LandscapeMaterials_has_Supplier_Supplier1`
  FOREIGN KEY (`Supplier_SupplierID`)
    REFERENCES `Eden_landscape`.`Supplier` (`SupplierID`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;
```

```
-----
-- Table `Eden_landscape`.`LandscapeMaterials_has_Shipment`
-----
```

```
CREATE TABLE IF NOT EXISTS `Eden_landscape`.`LandscapeMaterials_has_Shipment` (
  `LandscapeMaterials_LM_ID` INT NOT NULL,
  `Shipment_ShipmentID` INT UNSIGNED NOT NULL,
  PRIMARY KEY (`LandscapeMaterials_LM_ID`, `Shipment_ShipmentID`),
  INDEX `fk_LandscapeMaterials_has_Shipment_Shipment1_idx` (`Shipment_ShipmentID` ASC)
  VISIBLE,
  INDEX `fk_LandscapeMaterials_has_Shipment_LandscapeMaterials1_idx`
  (`LandscapeMaterials_LM_ID` ASC) VISIBLE,
  CONSTRAINT `fk_LandscapeMaterials_has_Shipment_LandscapeMaterials1`
  FOREIGN KEY (`LandscapeMaterials_LM_ID`)
    REFERENCES `Eden_landscape`.`LandscapeMaterials` (`LM_ID`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
```

```
CONSTRAINT `fk_LandscapeMaterials_has_Shipment_Shipment1`  
  FOREIGN KEY (`Shipment_ShipmentID`)  
    REFERENCES `Eden_Landscape`.`Shipment` (`ShipmentID`)  
  ON DELETE NO ACTION  
  ON UPDATE NO ACTION)  
ENGINE = InnoDB;
```

```
SET SQL_MODE=@OLD_SQL_MODE;  
SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS;  
SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS;
```

Thought and Process

I assume that LiveStock, LandscapeMaterial entities have several supplier and shipment so I create the associate entities for those. LandscapeMaterial_has_supplier, LandscapeMaterial_has_shipment, LiveStock_has_supplier and LiveStockI_has_shipment are associate entities from many to one.