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-- MySQL Script generated by MySQL Workbench
-- Fri Aug 3 18:08:38 2018
-- Model: New Model      Version: 1.0
-- 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='TRADITIONAL,ALLOW_INVALID_DATES';
```

```
-- -----
-- Schema ycc353_1
-- -----
```

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-- Schema ycc353_1
-- -----
```

```
CREATE SCHEMA IF NOT EXISTS `ycc353_1` DEFAULT CHARACTER SET utf8 ;
USE `ycc353_1` ;
```

```
-- -----
-- Table `ycc353_1`.`LineOfBusiness`
-- -----
```

```
CREATE TABLE IF NOT EXISTS `ycc353_1`.`LineOfBusiness` (
  `lineOfBusinessName` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`lineOfBusinessName`))
ENGINE = InnoDB;
```

```
-- -----
-- Table `ycc353_1`.`InsurancePlan`
-- -----
```

```
CREATE TABLE IF NOT EXISTS `ycc353_1`.`InsurancePlan` (
  `name` VARCHAR(45) NOT NULL,
  `refundProrata` DECIMAL(5,2) NULL,
  PRIMARY KEY (`name`))
ENGINE = InnoDB;
```

```
-- -----
-- Table `ycc353_1`.`RoleType`
-- -----
```

```
CREATE TABLE IF NOT EXISTS `ycc353_1`.`RoleType` (
  `roleType` VARCHAR(45) NOT NULL COMMENT ' Sales associate, Manager, employee, Admin ',
  PRIMARY KEY (`roleType`))
ENGINE = InnoDB;
```

```
-- -----  
-- Table `ycc353_1`.`Account`  
-- -----  
CREATE TABLE IF NOT EXISTS `ycc353_1`.`Account` (  
  `id` INT NOT NULL AUTO_INCREMENT,  
  `username` VARCHAR(45) NULL,  
  `password` VARCHAR(255) NULL,  
  `email` VARCHAR(45) NULL,  
  `phone` VARCHAR(45) NULL,  
  `firstName` VARCHAR(45) NULL,  
  `middleInitial` CHAR(1) NULL,  
  `lastName` VARCHAR(45) NULL,  
  PRIMARY KEY (`id`))  
ENGINE = InnoDB;  
  
-- -----  
-- Table `ycc353_1`.`City`  
-- -----  
CREATE TABLE IF NOT EXISTS `ycc353_1`.`City` (  
  `city` VARCHAR(45) NOT NULL,  
  `province` VARCHAR(45) NOT NULL,  
  PRIMARY KEY (`city`, `province`))  
ENGINE = InnoDB;  
  
-- -----  
-- Table `ycc353_1`.`Employee`  
-- -----  
CREATE TABLE IF NOT EXISTS `ycc353_1`.`Employee` (  
  `id` INT NOT NULL AUTO_INCREMENT,  
  `lineOfBusinessName` VARCHAR(45) NOT NULL,  
  `insurancePlanName` VARCHAR(45) NOT NULL,  
  `roleType` VARCHAR(45) NOT NULL,  
  `weeklyHours` DECIMAL(5,2) NULL,  
  `accountId` INT NOT NULL,  
  `city` VARCHAR(45) NOT NULL,  
  `province` VARCHAR(45) NOT NULL,  
  PRIMARY KEY (`id`),  
  INDEX `fk_Employee_Department1_idx` (`lineOfBusinessName` ASC),  
  INDEX `fk_Employee_InsurancePlan1_idx` (`insurancePlanName` ASC),  
  INDEX `fk_Employee_Role1_idx` (`roleType` ASC),  
  INDEX `fk_Employee_Account1_idx` (`accountId` ASC),
```

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INDEX `fk_Employee_City1_idx` (`city` ASC, `province` ASC),
CONSTRAINT `fk_Employee_Department1`
  FOREIGN KEY (`lineOfBusinessName`)
  REFERENCES `ycc353_1`.`LineOfBusiness` (`lineOfBusinessName`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `fk_Employee_InsurancePlan1`
  FOREIGN KEY (`insurancePlanName`)
  REFERENCES `ycc353_1`.`InsurancePlan` (`name`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `fk_Employee_Role1`
  FOREIGN KEY (`roleType`)
  REFERENCES `ycc353_1`.`RoleType` (`roleType`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `fk_Employee_Account1`
  FOREIGN KEY (`accountId`)
  REFERENCES `ycc353_1`.`Account` (`id`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `fk_Employee_City1`
  FOREIGN KEY (`city` , `province`)
  REFERENCES `ycc353_1`.`City` (`city` , `province`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

-- -----
-- Table `ycc353_1`.`ContractType`
-- -----

```

```

CREATE TABLE IF NOT EXISTS `ycc353_1`.`ContractType` (
  `contractType` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`contractType`))
ENGINE = InnoDB;

```

```

-- -----
-- Table `ycc353_1`.`PlatformType`
-- -----

```

```

CREATE TABLE IF NOT EXISTS `ycc353_1`.`PlatformType` (
  `platformType` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`platformType`))
ENGINE = InnoDB;

```

-- -----  
-- Table `ycc353\_1`.`Client`  
-- -----

```
CREATE TABLE IF NOT EXISTS `ycc353_1`.`Client` (  
  `id` INT NOT NULL AUTO_INCREMENT,  
  `companyName` VARCHAR(45) NULL,  
  `address` VARCHAR(45) NULL,  
  `postalCode` VARCHAR(45) NULL,  
  `accountId` INT NOT NULL,  
  `city` VARCHAR(45) NULL,  
  `province` VARCHAR(45) NULL,  
  PRIMARY KEY (`id`),  
  INDEX `fk_Client_Account1_idx` (`accountId` ASC),  
  INDEX `fk_Client_City1_idx` (`city` ASC, `province` ASC),  
  CONSTRAINT `fk_Client_Account1`  
    FOREIGN KEY (`accountId`)  
    REFERENCES `ycc353_1`.`Account` (`id`)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION,  
  CONSTRAINT `fk_Client_City1`  
    FOREIGN KEY (`city` , `province`)  
    REFERENCES `ycc353_1`.`City` (`city` , `province`)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION)  
ENGINE = InnoDB;
```

-- -----  
-- Table `ycc353\_1`.`Contract`  
-- -----

```
CREATE TABLE IF NOT EXISTS `ycc353_1`.`Contract` (  
  `id` INT NOT NULL AUTO_INCREMENT,  
  `contractType` VARCHAR(45) NOT NULL,  
  `managerId` INT NOT NULL,  
  `annualContractValue` DOUBLE NULL,  
  `initialAmount` DOUBLE NULL,  
  `serviceStartDate` DATE NULL,  
  `serviceEndDate` DATE NULL,  
  `platformType` VARCHAR(45) NOT NULL,  
  `satisfactionScore` DECIMAL(5,2) NULL,  
  `clientId` INT NOT NULL,  
  PRIMARY KEY (`id`),  
  INDEX `fk_Contract_ContractType_idx` (`contractType` ASC),
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INDEX `fk_Contract_Employee1_idx` (`managerId` ASC),
INDEX `fk_Contract_ServiceType1_idx` (`platformType` ASC),
INDEX `fk_Contract_Client1_idx` (`clientId` ASC),
CONSTRAINT `fk_Contract_ContractType`
  FOREIGN KEY (`contractType`)
  REFERENCES `ycc353_1`.`ContractType` (`contractType`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `fk_Contract_Employee1`
  FOREIGN KEY (`managerId`)
  REFERENCES `ycc353_1`.`Employee` (`id`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `fk_Contract_ServiceType1`
  FOREIGN KEY (`platformType`)
  REFERENCES `ycc353_1`.`PlatformType` (`platformType`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION,
CONSTRAINT `fk_Contract_Client1`
  FOREIGN KEY (`clientId`)
  REFERENCES `ycc353_1`.`Client` (`id`)
  ON DELETE NO ACTION
  ON UPDATE NO ACTION)
ENGINE = InnoDB;

-- -----
-- Table `ycc353_1`.`WorkChoice`
-- -----
CREATE TABLE IF NOT EXISTS `ycc353_1`.`WorkChoice` (
  `employeeId` INT NOT NULL,
  `contractType` VARCHAR(45) NOT NULL,
  `platformType` VARCHAR(45) NOT NULL,
  INDEX `fk_WorkChoice_Employee1_idx` (`employeeId` ASC),
  INDEX `fk_WorkChoice_ContractType1_idx` (`contractType` ASC),
  INDEX `fk_WorkChoice_ServiceType1_idx` (`platformType` ASC),
  PRIMARY KEY (`employeeId`, `platformType`, `contractType`),
  CONSTRAINT `fk_WorkChoice_Employee1`
    FOREIGN KEY (`employeeId`)
    REFERENCES `ycc353_1`.`Employee` (`id`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT `fk_WorkChoice_ContractType1`
    FOREIGN KEY (`contractType`)
    REFERENCES `ycc353_1`.`ContractType` (`contractType`)

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        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
CONSTRAINT `fk_WorkChoice_ServiceType1`
    FOREIGN KEY (`platformType`)
    REFERENCES `ycc353_1`.`PlatformType` (`platformType`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

-- -----
-- Table `ycc353_1`.`SaleRecord`
-- -----

```

```

CREATE TABLE IF NOT EXISTS `ycc353_1`.`SaleRecord` (
  `contractId` INT NOT NULL,
  `employeeId` INT NOT NULL,
  `initialValue` DECIMAL(10,2) NULL,
  `annualValue` DECIMAL(10,2) NULL,
  `recordedDate` DATE NULL,
  INDEX `fk_SaleRecord_Contract1_idx` (`contractId` ASC),
  INDEX `fk_SaleRecord_Employee1_idx` (`employeeId` ASC),
  CONSTRAINT `fk_SaleRecord_Contract1`
    FOREIGN KEY (`contractId`)
    REFERENCES `ycc353_1`.`Contract` (`id`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT `fk_SaleRecord_Employee1`
    FOREIGN KEY (`employeeId`)
    REFERENCES `ycc353_1`.`Employee` (`id`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

-- -----
-- Table `ycc353_1`.`DeliverableStandard`
-- -----

```

```

CREATE TABLE IF NOT EXISTS `ycc353_1`.`DeliverableStandard` (
  `contractType` VARCHAR(45) NOT NULL,
  `deliverable` VARCHAR(45) NOT NULL,
  `dueAfter` INT NULL,
  INDEX `fk_DeliverableStandard_ContractType1_idx` (`contractType` ASC),
  PRIMARY KEY (`contractType`, `deliverable`),
  CONSTRAINT `fk_DeliverableStandard_ContractType1`
    FOREIGN KEY (`contractType`)

```

```

REFERENCES `ycc353_1`.`ContractType` (`contractType`)
ON DELETE NO ACTION
ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

-----
-- Table `ycc353_1`.`ContractAssignment`
-----
CREATE TABLE IF NOT EXISTS `ycc353_1`.`ContractAssignment` (
  `contractId` INT NOT NULL,
  `employeeId` INT NOT NULL,
  `hoursWorked` DECIMAL(10,2) NULL,
  PRIMARY KEY (`contractId`, `employeeId`),
  INDEX `fk_ContractAssignment_Employee1_idx` (`employeeId` ASC),
  CONSTRAINT `fk_ContractAssignment_Contract1`
    FOREIGN KEY (`contractId`)
      REFERENCES `ycc353_1`.`Contract` (`id`)
      ON DELETE NO ACTION
      ON UPDATE NO ACTION,
  CONSTRAINT `fk_ContractAssignment_Employee1`
    FOREIGN KEY (`employeeId`)
      REFERENCES `ycc353_1`.`Employee` (`id`)
      ON DELETE NO ACTION
      ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

-----
-- Table `ycc353_1`.`DeliverableLog`
-----
CREATE TABLE IF NOT EXISTS `ycc353_1`.`DeliverableLog` (
  `contractId` INT NOT NULL,
  `contractType` VARCHAR(45) NOT NULL,
  `deliverable` VARCHAR(45) NOT NULL,
  INDEX `fk_DeliverableLog_Contract1_idx` (`contractId` ASC),
  INDEX `fk_DeliverableLog_DeliverableStandard1_idx` (`contractType` ASC, `deliverable` ASC),
  CONSTRAINT `fk_DeliverableLog_Contract1`
    FOREIGN KEY (`contractId`)
      REFERENCES `ycc353_1`.`Contract` (`id`)
      ON DELETE NO ACTION
      ON UPDATE NO ACTION,
  CONSTRAINT `fk_DeliverableLog_DeliverableStandard1`
    FOREIGN KEY (`contractType`, `deliverable`)
      REFERENCES `ycc353_1`.`DeliverableStandard` (`contractType`, `deliverable`)

```

```
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;
```

**Account**

Primary Key: (ID)

Candidate Keys: (ID), (username), (email), (first, middle, last)

Dependencies: (ID) → (username) → (first, middle, last) → email, phone

**Role**

Primary Key: (name)

Candidate Keys: (name)

Dependencies: (name)

**Employee**

Primary Key: (ID)

Candidate Keys: (ID)

Dependencies: ID → Insurance Plan, Line of Business, Role, Weekly Hours, Account ID, City, Province

**Contract Type**

Primary Key: (contractType)

Candidate Keys: (contractType)

Dependencies: (contractType)

**Line of Business**

Primary Key: (lineOfBusinessName)

Candidate Keys: (lineOfBusinessName)

Dependencies: (lineOfBusinessName)

**Platform**

Primary Key: (platformType)

Candidate Keys: (platformType)

Dependencies: (platformType)

**City**

Primary Key: (city, province)

Candidate Keys: (city, province)

Dependencies: (city, province)

**Client**

Primary Key: (ID)

Candidate Keys: (ID), (Account ID, Company Name)



Dependencies: (ID) → (Account ID, Company Name) → address → City, Province, Postal Code

**Contract**

Primary Key: (ID)

Candidate Keys: (ID), (Client, Contract Type)

Dependencies: (ID) → (Client, Contract Type) → platformType, Manager ID, Start Date, End Date, Satisfaction Score

**Work Choice**

Primary Key: (employeeId, Contract Type, Platform)

Candidate Keys: (employeeId, Contract Type, Platform)

Dependencies: (employeeId, Contract Type, Platform)

**Sale Record**

Primary Key: (Contract)

Candidate Keys: (Contract)

Dependencies: (Contract) → employeeId, Initial Value, Annual Value, recordedDate

**Deliverable Standard**

Primary Key: (Contract Type, Deliverable)

Candidate Keys: (Contract Type, Deliverable)

Dependencies: (Contract, Deliverable) → Due After

**Contract Assignment**

Primary Key: (Contract, Employee)

Candidate Keys: (Contract, Employee)

Dependencies: (Contract, Employee) → Hours Worked

**Deliverable Log**

Primary Key: (Contract Type, Deliverable)

Candidate Keys: (Contract Type, Deliverable)

Dependencies: (Contract, Deliverable) → Completed Date