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Medical services

Τελική Εργασία για το «Προγραμματισμός με Java: Από το Α στο Ω»

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# Database and Data Modeling Section

## DBMS

### MySQL 8.0.34 & MySQL Workbench for data modeling

### SQL DDL Scripts

-- 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 medicalservices

-- -----------------------------------------------------

-- -----------------------------------------------------

-- Schema medicalservices

-- -----------------------------------------------------

CREATE SCHEMA IF NOT EXISTS `medicalservices` DEFAULT CHARACTER SET utf8 ;

USE `medicalservices` ;

-- -----------------------------------------------------

-- Table `medicalservices`.`SPECIALTIES`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`SPECIALTIES` (

`SPECIALTY\_ID` INT(3) NOT NULL,

`SPECIALTY\_DESC` VARCHAR(45) CHARACTER SET 'utf8' NOT NULL,

PRIMARY KEY (`SPECIALTY\_ID`),

INDEX `SPEC\_DESC\_IDX` (`SPECIALTY\_DESC` ASC) VISIBLE)

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `medicalservices`.`DOCTORS`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`DOCTORS` (

`DOCTOR\_ID` INT(11) NOT NULL,

`S\_NAME` VARCHAR(45) NOT NULL,

`F\_NAME` VARCHAR(45) NULL,

`SSN` INT(11) NOT NULL,

`SPECIALTIES\_SPECIALTY\_ID` INT(3) NOT NULL,

PRIMARY KEY (`DOCTOR\_ID`, `SPECIALTIES\_SPECIALTY\_ID`),

UNIQUE INDEX `SSN\_UNIQUE` (`SSN` ASC) VISIBLE,

INDEX `S\_NAME` (`S\_NAME` ASC) VISIBLE,

INDEX `fk\_DOCTORS\_SPECIALTIES1\_idx` (`SPECIALTIES\_SPECIALTY\_ID` ASC) VISIBLE,

CONSTRAINT `fk\_DOCTORS\_SPECIALTIES1`

FOREIGN KEY (`SPECIALTIES\_SPECIALTY\_ID`)

REFERENCES `medicalservices`.`SPECIALTIES` (`SPECIALTY\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `medicalservices`.`PATIENTS`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`PATIENTS` (

`PATIENT\_ID` INT(11) NOT NULL,

`PS\_NAME` VARCHAR(45) NOT NULL,

`PF\_NAME` VARCHAR(45) NULL,

`PSSN` INT(11) NOT NULL,

`GENDER` VARCHAR(10) NULL,

`BIRTHDATE` VARCHAR(8) NOT NULL,

`LAST\_VISIT\_DATE` VARCHAR(8) NULL,

`ALLERGIES` VARCHAR(45) NULL,

`NOTES` VARCHAR(45) NULL,

`DOCTORS\_DOCTOR\_ID` INT(11) NOT NULL,

PRIMARY KEY (`PATIENT\_ID`),

INDEX `PS\_NAME` (`PS\_NAME` ASC) INVISIBLE,

INDEX `fk\_PATIENT\_DOCTORS\_idx` (`DOCTORS\_DOCTOR\_ID` ASC) VISIBLE,

CONSTRAINT `fk\_PATIENT\_DOCTORS`

FOREIGN KEY (`DOCTORS\_DOCTOR\_ID`)

REFERENCES `medicalservices`.`DOCTORS` (`DOCTOR\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `medicalservices`.`APPOITMENTSTATUS`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`APPOITMENTSTATUS` (

`STATUS\_ID` INT NOT NULL,

`STATUS\_DESC` VARCHAR(45) NOT NULL,

PRIMARY KEY (`STATUS\_ID`))

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `medicalservices`.`APPOINTMENTS`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`APPOINTMENTS` (

`AP\_DATE` VARCHAR(8) NOT NULL,

`AP\_TIME` VARCHAR(10) NOT NULL,

`AP\_REASON` VARCHAR(45) NULL,

`PATIENT\_PATIENT\_ID` INT(11) NOT NULL,

`VISITS\_VISIT\_ID` INT(11) NULL,

`APPOITMENTSTATUS\_STATUS\_ID` INT NOT NULL,

`DOCTORS\_DOCTOR\_ID` INT(11) NOT NULL,

`APPOINTMENT\_ID` INT(11) NOT NULL,

INDEX `AP\_DATE` (`AP\_DATE` ASC) VISIBLE,

PRIMARY KEY (`APPOINTMENT\_ID`),

INDEX `fk\_APOINTMENTS\_APPOITMENTSTATUS1\_idx` (`APPOITMENTSTATUS\_STATUS\_ID` ASC) VISIBLE,

INDEX `fk\_APOINTMENTS\_DOCTORS1\_idx` (`DOCTORS\_DOCTOR\_ID` ASC) VISIBLE,

CONSTRAINT `fk\_APOINTMENTS\_APPOITMENTSTATUS1`

FOREIGN KEY (`APPOITMENTSTATUS\_STATUS\_ID`)

REFERENCES `medicalservices`.`APPOITMENTSTATUS` (`STATUS\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `fk\_APOINTMENTS\_DOCTORS1`

FOREIGN KEY (`DOCTORS\_DOCTOR\_ID`)

REFERENCES `medicalservices`.`DOCTORS` (`DOCTOR\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `medicalservices`.`VISITS`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`VISITS` (

`VISIT\_DATE` VARCHAR(20) NOT NULL,

`PERSCRIPTION\_ID` INT(11) NULL,

`WEIGHT` INT(11) NULL,

`BLOOD\_PRESURE` INT(11) NULL,

`TEMPERATURE` INT(11) NULL,

`DIAGNOSIS\_NOTES` VARCHAR(45) NOT NULL,

`TREATMENT\_NOTES` VARCHAR(45) NOT NULL,

`DOCTORS\_DOCTOR\_ID` INT(11) NOT NULL,

`PATIENT\_PATIENT\_ID` INT(11) NOT NULL,

PRIMARY KEY (`DOCTORS\_DOCTOR\_ID`, `PATIENT\_PATIENT\_ID`, `VISIT\_DATE`),

INDEX `fk\_VISITS\_DOCTORS1\_idx` (`DOCTORS\_DOCTOR\_ID` ASC) VISIBLE,

INDEX `fk\_VISITS\_PATIENT1\_idx` (`PATIENT\_PATIENT\_ID` ASC) VISIBLE,

CONSTRAINT `fk\_VISITS\_DOCTORS1`

FOREIGN KEY (`DOCTORS\_DOCTOR\_ID`)

REFERENCES `medicalservices`.`DOCTORS` (`DOCTOR\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `fk\_VISITS\_PATIENT1`

FOREIGN KEY (`PATIENT\_PATIENT\_ID`)

REFERENCES `medicalservices`.`PATIENTS` (`PATIENT\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `medicalservices`.`PRESCRIPTIONS`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`PRESCRIPTIONS` (

`PRESCRIPTION\_ID` INT NOT NULL,

`PR\_DATE` VARCHAR(8) NULL,

`PR\_DOSAGE` VARCHAR(45) NULL,

`MEDIATION` VARCHAR(45) NULL,

`VISITS\_VISIT\_ID` INT(11) NOT NULL,

PRIMARY KEY (`PRESCRIPTION\_ID`, `VISITS\_VISIT\_ID`))

ENGINE = InnoDB;

USE `medicalservices` ;

-- -----------------------------------------------------

-- Placeholder table for view `medicalservices`.`DOCTORSPECIALTIES`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`DOCTORSPECIALTIES` (`specialty\_desc` INT);

-- -----------------------------------------------------

-- Placeholder table for view `medicalservices`.`APPOITMENTSTATUSES`

-- -----------------------------------------------------

CREATE TABLE IF NOT EXISTS `medicalservices`.`APPOITMENTSTATUSES` (`status\_desc` INT);

-- -----------------------------------------------------

-- View `medicalservices`.`DOCTORSPECIALTIES`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `medicalservices`.`DOCTORSPECIALTIES`;

USE `medicalservices`;

CREATE OR REPLACE VIEW DOCTORSPECIALTIES AS SELECT doctors.\*, specialties.specialty\_desc FROM doctors INNER JOIN specialties ON specialties\_specialty\_id = specialty\_id;

-- -----------------------------------------------------

-- View `medicalservices`.`APPOITMENTSTATUSES`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `medicalservices`.`APPOITMENTSTATUSES`;

USE `medicalservices`;

CREATE OR REPLACE VIEW APPOITMENTSTATUSES AS SELECT Appointments.\*, appoitmentstatus.status\_desc FROM appointments INNER JOIN appoitmentstatus ON appoitmentstatus\_status\_id = status\_id;

CREATE USER 'kpsarros' IDENTIFIED BY 'kps2152001@';

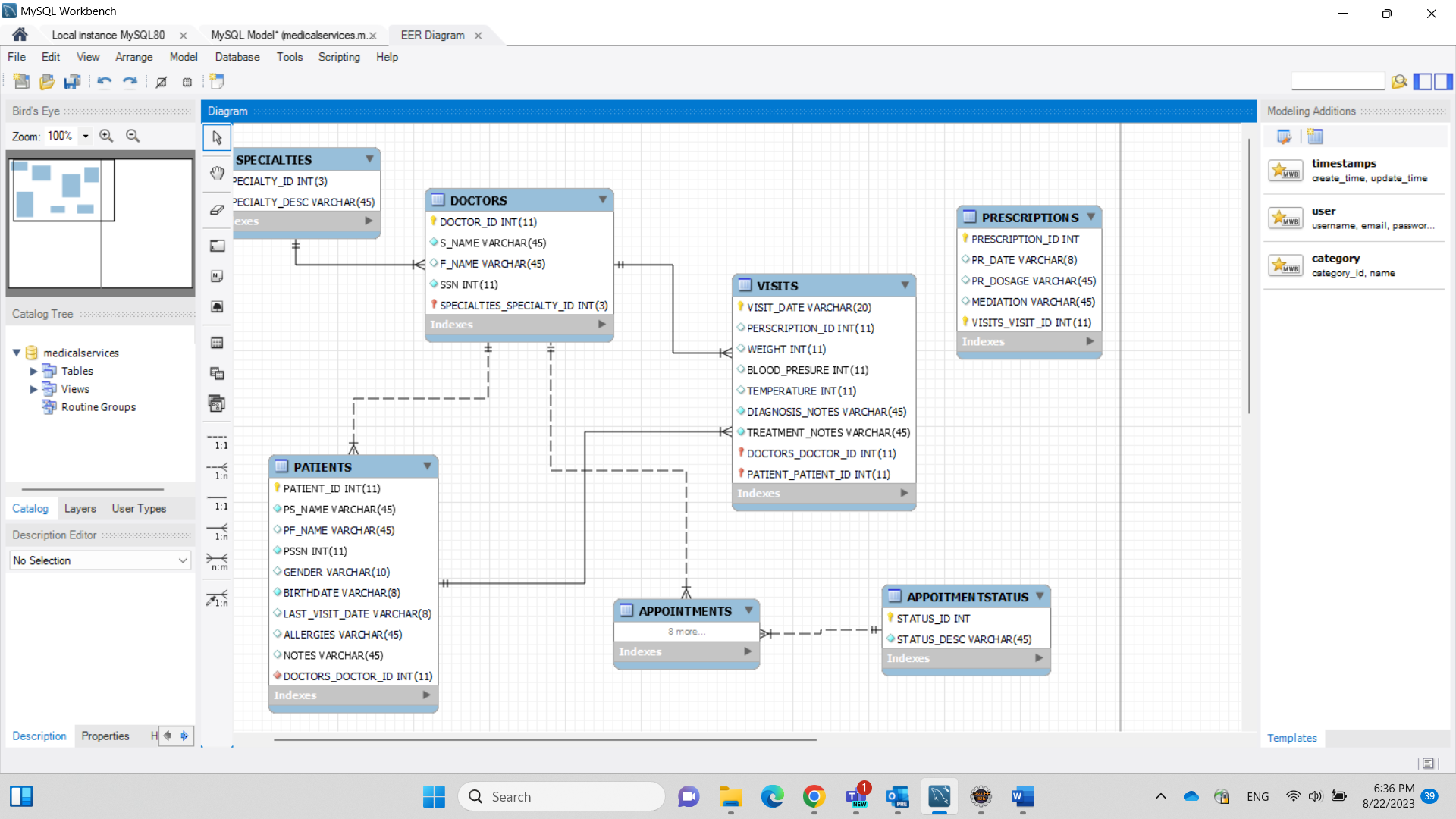
GRANT ALL ON `medicalservices`.\* TO 'kpsarros';

SET SQL\_MODE=@OLD\_SQL\_MODE;

SET FOREIGN\_KEY\_CHECKS=@OLD\_FOREIGN\_KEY\_CHECKS;

SET UNIQUE\_CHECKS=@OLD\_UNIQUE\_CHECKS;

### ERD – Diagram



# GUI (Graphical User Interface)

Παρακάτω παρατίθεται η ιεραρχία των οθονών, κάθε μία από τις οποίες υλοποιείται σαν μια ανεξάρτητη java κλάση και περιέχονται στον φάκελο “medical\_services\src\medical\_services\views”.

To project γράφτηκε στο IDE Eclipse και για το UI χρησιμοποιήθηκε το Windows Builder plug in, από το Eclipse Marketplace

## Περιγραφή κλάσεων

MedicalServices: Main Driver (includes the Main method)

FrmLogin; Οθόνη Login

FrmInitialScreen: Αρχική οθόνη

FrmInsertDoctors: Εισαγωγή Ιατρού

FrmInsertPatients: Εισαγωγή Ασθενούς

MainWindow: Αναζήτηση / Καταχώρηση Ραντεβού

FrmAbout:

FrmVersion

FrmSearchDoctors: Επιλογή Ιατρού

FrmSearchPatients: Επιλογή Ασθενούς

## GUI Structure