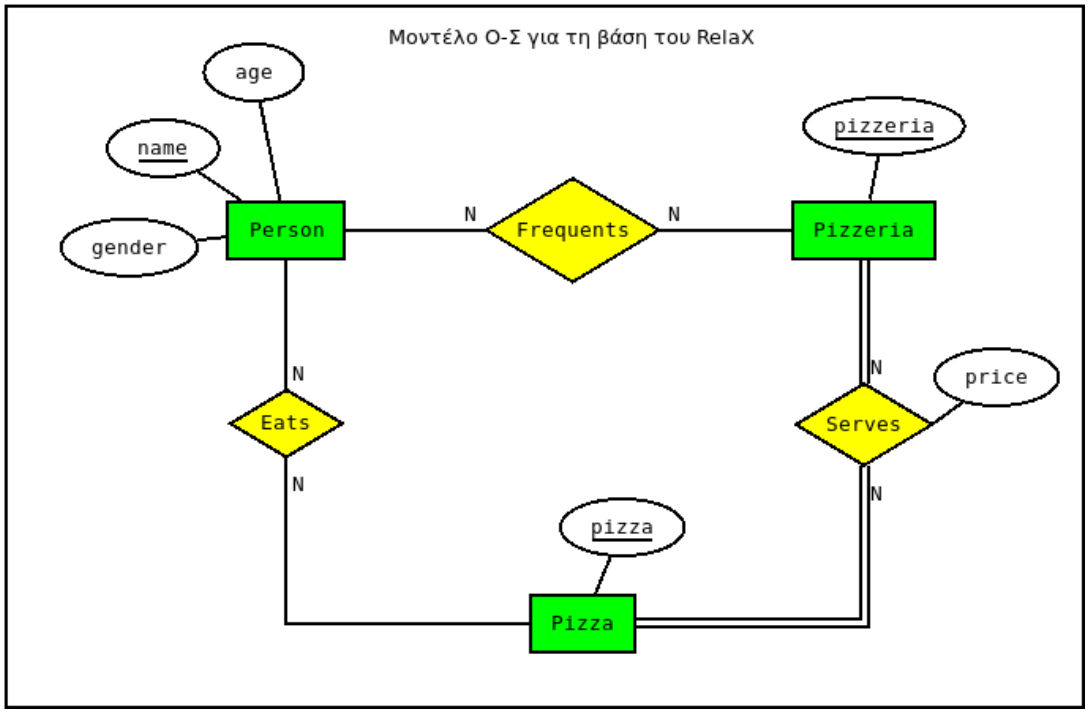
Η βάση δεδομένων για την εξάσκηση στη σχεσιακή άλγεβρα στο περιβάλλον του RelaX

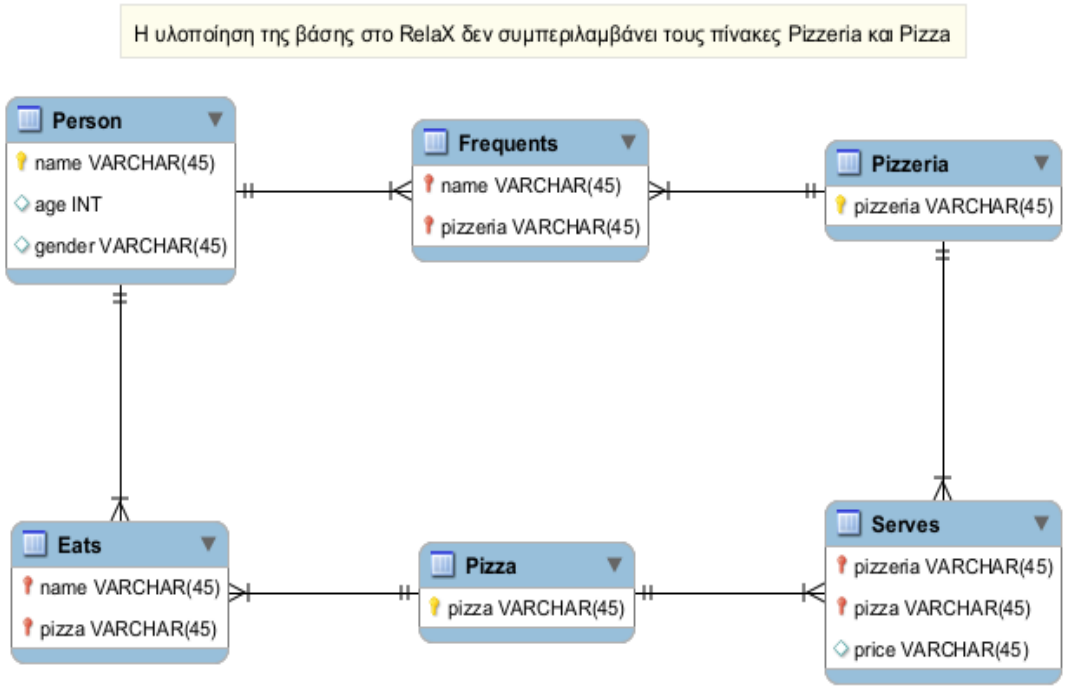
1. Ιδεατό Σχήμα (Μοντέλο Ο-Σ)



2. Λογικό Σχήμα (Σχεσιακό Μοντέλο)

```
Person (name, age, gender)
Pizerria (pizzeria)
Pizza (pizza)
Frequents (name, pizzeria)
      name ξένο κλειδί - αναφέρεται στο Person (name)
      pizzeria ξένο κλειδί - αναφέρεται στο Pizzeria (pizzeria)
Eats (name, pizza)
      name ξένο κλειδί - αναφέρεται στο Person (name)
      pizza ξένο κλειδί - αναφέρεται στο Pizza (pizza)
Serves (pizzeria, pizza, price)
      pizzeria ξένο κλειδί - αναφέρεται στο Pizzeria (pizzeria)
      pizza ξένο κλειδί - αναφέρεται στο Pizza (pizza)
```

Οπτικοποίηση του σχεσιακού σχήματος με τη μορφή EER στο MySQL Workbench



Η βάση δεδομένων για την εξάσκηση στη σχεσιακή άλγεβρα στο περιβάλλον του RelaX

3. Φυσικό Σχήμα (SQL implementation)

```
-- MySQL Script generated by MySQL Workbench
-- Fri 03 Apr 2020 09:25:50 AM EEST
-- 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='ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO_ZERO_DATE,ER
ROR_FOR_DIVISION_BY_ZERO,NO_ENGINE_SUBSTITUTION';

-- -----------------------------------------------------
-- Schema mydb
-- -----------------------------------------------------
CREATE SCHEMA IF NOT EXISTS `mydb` DEFAULT CHARACTER SET utf8 ;
USE `mydb` ;

-- -----------------------------------------------------
-- Table `mydb`.`Person`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`Person` (
  `name` VARCHAR(45) NOT NULL,
  `age` INT NULL,
  `gender` VARCHAR(45) NULL,
  PRIMARY KEY (`name`))
ENGINE = InnoDB;

-- -----------------------------------------------------
-- Table `mydb`.`Pizza`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`Pizza` (
  `pizza` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`pizza`))
ENGINE = InnoDB;

-- -----------------------------------------------------
-- Table `mydb`.`Pizzeria`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`Pizzeria` (
  `pizzeria` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`pizzeria`))
ENGINE = InnoDB;

-- -----------------------------------------------------
-- Table `mydb`.`Frequents`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`Frequents` (
  `name` VARCHAR(45) NOT NULL,
  `pizzeria` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`name`, `pizzeria`),
  INDEX `fk_Person_has_Pizzeria_Pizzeria1_idx` (`pizzeria` ASC) VISIBLE,
  INDEX `fk_Person_has_Pizzeria_Person_idx` (`name` ASC) VISIBLE,
  CONSTRAINT `fk_Person_has_Pizzeria_Person`
    FOREIGN KEY (`name`)
    REFERENCES `mydb`.`Person` (`name`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT `fk_Person_has_Pizzeria_Pizzeria1`
    FOREIGN KEY (`pizzeria`)
    REFERENCES `mydb`.`Pizzeria` (`pizzeria`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;

-- -----------------------------------------------------
-- Table `mydb`.`Eats`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`Eats` (
  `name` VARCHAR(45) NOT NULL,
  `pizza` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`name`, `pizza`),
  INDEX `fk_Person_has_Pizza_Pizza1_idx` (`pizza` ASC) VISIBLE,
  INDEX `fk_Person_has_Pizza_Person1_idx` (`name` ASC) VISIBLE,
  CONSTRAINT `fk_Person_has_Pizza_Person1`
    FOREIGN KEY (`name`)
    REFERENCES `mydb`.`Person` (`name`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT `fk_Person_has_Pizza_Pizza1`
    FOREIGN KEY (`pizza`)
    REFERENCES `mydb`.`Pizza` (`pizza`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;

-- -----------------------------------------------------
-- Table `mydb`.`Serves`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`Serves` (
  `pizzeria` VARCHAR(45) NOT NULL,
  `pizza` VARCHAR(45) NOT NULL,
  `price` VARCHAR(45) NULL,
  PRIMARY KEY (`pizzeria`, `pizza`),
  INDEX `fk_Pizzeria_has_Pizza_Pizza1_idx` (`pizza` ASC) VISIBLE,
  INDEX `fk_Pizzeria_has_Pizza_Pizzeria1_idx` (`pizzeria` ASC) VISIBLE,
  CONSTRAINT `fk_Pizzeria_has_Pizza_Pizzeria1`
    FOREIGN KEY (`pizzeria`)
    REFERENCES `mydb`.`Pizzeria` (`pizzeria`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT `fk_Pizzeria_has_Pizza_Pizza1`
    FOREIGN KEY (`pizza`)
    REFERENCES `mydb`.`Pizza` (`pizza`)
    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;
```