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ΕΑΡΙΝΟ ΕΞΑΜΗΝΟ 2018-2019

**8η Εργαστηριακή Άσκηση**

**Σκοπός:** Εξοικείωση με τις Αντικειμενοσχεσιακές Βάσεις Δεδομένων.

**Μέθοδος / Εργαλεία:**  
α) Χρήση της Oracle και του SQL Developer

**Οδηγίες:**

Στην εικόνα 1 δίνεται διαγραμματικά το σχήμα ενός συστήματος μηχανογράφησης των ΚΤΕΛ. Σ’ αυτήν την βάση υπάρχουν έξι τάξεις αντικειμένων, πιο αναλυτικά:

* Η Πόλη, όπου τα στοιχεία που κρατούνται είναι το όνομα της (varchar(20)) και η χώρα (varchar(20)) στην οποία ανήκει.
* Ο Υπάλληλος, όπου τα στοιχεία που κρατούνται είναι ο αριθμός ταυτότητας (varchar(10)), το όνομα (varchar(20)), το επώνυμο (varchar(30)), το φύλο (varchar(1)), η ηλικία του (integer), η διεύθυνση κατοικίας (varchar(40)) και η ημερομηνία πρόσληψης του (Date).
* Ο Οδηγός, ο οποίος είναι υποτάξη του Υπαλλήλου και έχει πρόσθετα και άλλα δύο πεδία τον τύπο του διπλώματος του (varchar(30)) και τον αριθμό δρομολογίων (integer) που έχει κάνει.
* Ο Συνοδός, ο οποίος είναι υποτάξη του Υπαλλήλου και έχει πρόσθετα και άλλο ένα πεδίο τον βαθμό του (varchar(20)) (π.χ. Ελεγκτής, Εισπράκτορας, …).
* Το πλήρωμα που έχει, το οποίο αποτελείται από ένα όνομα (varchar(20)) από έναν Οδηγό και ένα Συνοδό.
* Το Λεωφορείο, όπου τα στοιχεία που κρατούνται είναι ο αριθμός κυκλοφορίας του (varchar(8)), η έδρα του η οποία είναι τύπου Πόλη, η ημερομηνία κατασκευής (Date), το πλήρωμα που έχει, το οποίο είναι τύπου πλήρωμα και ο αριθμός των χιλιομέτρων (integer) που έχει διανύσει.
* Το Δρομολόγιο, όπου τα στοιχεία που κρατούνται είναι ο αριθμός δρομολογίου (integer), η αφετηρία και ο προορισμός τα οποία είναι τύπου Πόλης, η ημέρα (varchar(10)) και η ώρα (Time - δημιουργείστε δικό σας τύπο TIME με ιδιότητες HOUR και MINUTE) που έγινε ή θα γίνει το δρομολόγιο, το Λεωφορείο και η τιμή του εισιτηρίου (integer).

Να γίνουν τα παρακάτω:

* Να κατασκευαστούν οι κατάλληλοι τύποι και πίνακες για να υλοποιηθεί το σχήμα της εικόνας 1.



Εικόνα 1

**ΛΥΣΗ**

CREATE OR REPLACE TYPE Poli\_type AS OBJECT

(Onoma varchar(20),

Xora varchar(20));

create or replace TYPE Ypallilos\_type AS OBJECT

(Tautotita varchar(10),

Onoma varchar(20),

Eponumo varchar(30),

Fulo varchar(1),

Hlikia integer,

Dieuthinsi varchar(40),

Hmer\_Proslipsis Date)

NOT FINAL;

create or replace TYPE Odigos\_type UNDER Ypallilos\_type

(Typos varchar(30),

Arithmos integer);

create or replace TYPE Synodos\_type UNDER Ypallilos\_type

(Vathmos VARCHAR(20));

create or replace TYPE Pliroma\_type AS OBJECT

(Onoma VARCHAR(20),

Odigos REF Odigos\_type,

Synodos REF Synodos\_type);

CREATE OR REPLACE TYPE Leoforeio\_type AS OBJECT

(Arithmos VARCHAR(8),

edra REF Poli\_type,

Hmer\_kataskeuhs Date,

Pliroma REF Pliroma\_type,

Xiliometra integer);

create or replace TYPE TIME AS OBJECT

(HOUR INTEGER,

MINUTE INTEGER);

create or replace TYPE Dromologio\_type AS OBJECT

(Arithmos Integer,

Afetiria REF Poli\_type,

Proorismos REF Poli\_type,

Hmera\_dromologiou Varchar(10),

Ora\_dromologiou TIME,

Leoforeio REF Leoforeio\_type,

Timi\_Eisitiriou integer);

CREATE TABLE Poli\_TABLE OF Poli\_TYPE;

CREATE TABLE Ypallilos\_TABLE OF Ypallilos\_TYPE;

CREATE TABLE Pliroma\_TABLE OF Pliroma\_TYPE;

CREATE TABLE Leoforeio\_TABLE OF Leoforeio\_TYPE;

CREATE TABLE Dromologio\_TABLE OF Dromologio\_TYPE;

INSERT INTO Poli\_table (Onoma, Xora) VALUES ('Thessaloniki', 'Ellada');

INSERT INTO Poli\_table (Onoma, Xora) VALUES ('Athina', 'Ellada');

INSERT INTO Poli\_table (Onoma, Xora) VALUES ('Florina', 'Ellada');

INSERT INTO Poli\_table (Onoma, Xora) VALUES ('Larisa', 'Ellada');

INSERT INTO Poli\_table (Onoma, Xora) VALUES ('Volos', 'Ellada');

INSERT INTO Poli\_table (Onoma, Xora) VALUES ('Drama', 'Ellada');

INSERT INTO Poli\_table (Onoma, Xora) VALUES ('Sofia', 'Boulgaria');

INSERT INTO Ypallilos\_table VALUES ('ΑΑ111111', 'Giannis', 'Parios', 'M', 35, 'Tsimiski 1', date'2004-1-16');

INSERT INTO Ypallilos\_table VALUES ('ΒΒ222222', 'Giorgios', 'Karampelas', 'M', 40, 'Megalou Alexandrou 105', date'2000-10-10');

INSERT INTO Ypallilos\_table VALUES ('CC333333', 'Maria', 'Iouliou', 'F', 25, 'Egnatias 10', date'2002-11-25');

INSERT INTO Ypallilos\_table VALUES (Odigos\_type('HH888888', 'Dimitris', 'Stamatiou', 'M', 40, 'Kilkis 20', date'1995-5-25', 'Epaggelmatiko', 1234567));

INSERT INTO Ypallilos\_table VALUES (Odigos\_type('II999999', 'Katerina', 'Stauridou', 'F', 20, 'Papafi 201', date'2001-1-14', 'Erasitexniko', 3489762));

INSERT INTO Ypallilos\_table VALUES (Odigos\_type('JJ101010', 'Anna', 'Papasotiriou', 'F', 32, 'Ermou 17', date'2003-11-1', 'Erasitexniko', 4443233));

INSERT INTO Ypallilos\_table VALUES (Synodos\_type('DD444444', 'Kostas', 'Papadopoulos', 'M', 55, 'Axaion 15', date'1975-3-25', 'A'));

INSERT INTO Ypallilos\_table VALUES (Synodos\_type('EE555555', 'Giorgios', 'Georgiadis', 'M', 53, 'Serron 34', date'1976-4-11', 'A'));

INSERT INTO Ypallilos\_table VALUES (Synodos\_type('FF666666', 'Sotiria', 'Bellou', 'F', 38, 'Gravias 5', date'1999-6-2', 'B'));

INSERT INTO Ypallilos\_table VALUES (Synodos\_type('GG777777', 'Sofia', 'Iatrou', 'F', 41, 'Peramou 8', date'1977-6-2', 'B'));

-- PLIROMA\_TABLE

declare

odigos\_ref REF odigos\_type;

synodos\_ref REF synodos\_type;

begin

SELECT TREAT(REF(O) AS REF ODIGOS\_TYPE) INTO odigos\_ref FROM Ypallilos\_table O WHERE O.Tautotita = 'HH888888';

SELECT TREAT(REF(S) AS REF SYNODOS\_TYPE) INTO synodos\_ref FROM Ypallilos\_table S WHERE S.Tautotita = 'GG777777';

INSERT INTO Pliroma\_table values ('alpha', odigos\_ref,synodos\_ref);

end;

declare

odigos\_ref REF odigos\_type;

synodos\_ref REF synodos\_type;

begin

SELECT TREAT(REF(O) AS REF ODIGOS\_TYPE) INTO odigos\_ref FROM Ypallilos\_table O WHERE O.Tautotita = 'II999999';

SELECT TREAT(REF(S) AS REF SYNODOS\_TYPE) INTO synodos\_ref FROM Ypallilos\_table S WHERE S.Tautotita = 'DD444444';

INSERT INTO Pliroma\_table values ('beta', odigos\_ref,synodos\_ref);

end;

declare

odigos\_ref REF odigos\_type;

synodos\_ref REF synodos\_type;

begin

SELECT TREAT(REF(O) AS REF ODIGOS\_TYPE) INTO odigos\_ref FROM Ypallilos\_table O WHERE O.Tautotita = 'HH888888';

SELECT TREAT(REF(S) AS REF SYNODOS\_TYPE) INTO synodos\_ref FROM Ypallilos\_table S WHERE S.Tautotita = 'EE555555';

INSERT INTO Pliroma\_table values ('gamma', odigos\_ref,synodos\_ref);

end;

declare

odigos\_ref REF odigos\_type;

synodos\_ref REF synodos\_type;

begin

SELECT TREAT(REF(O) AS REF ODIGOS\_TYPE) INTO odigos\_ref FROM Ypallilos\_table O WHERE O.Tautotita = 'JJ101010';

SELECT TREAT(REF(S) AS REF SYNODOS\_TYPE) INTO synodos\_ref FROM Ypallilos\_table S WHERE S.Tautotita = 'FF666666';

INSERT INTO Pliroma\_table values ('delta', odigos\_ref,synodos\_ref);

end;

-- LEOFOREIO\_TABLE

declare

poli\_ref REF poli\_type;

pliroma\_ref REF pliroma\_type;

begin

SELECT REF(P) INTO poli\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO pliroma\_ref FROM Pliroma\_table P WHERE P.Onoma = 'alpha';

INSERT INTO Leoforeio\_table (Arithmos, edra, Hmer\_kataskeuhs, Pliroma, Xiliometra) VALUES ('NHE1010', Poli\_ref, date'2007-5-1', Pliroma\_ref, 10000);

end;

declare

poli\_ref REF poli\_type;

pliroma\_ref REF pliroma\_type;

begin

SELECT REF(P) INTO poli\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO pliroma\_ref FROM Pliroma\_table P WHERE P.Onoma = 'beta';

INSERT INTO Leoforeio\_table (Arithmos, edra, Hmer\_kataskeuhs, Pliroma, Xiliometra) VALUES ('NEE9990', Poli\_ref, date'2006-6-1', Pliroma\_ref, 50000);

end;

declare

poli\_ref REF poli\_type;

pliroma\_ref REF pliroma\_type;

begin

SELECT REF(P) INTO poli\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO pliroma\_ref FROM Pliroma\_table P WHERE P.Onoma = 'gamma';

INSERT INTO Leoforeio\_table (Arithmos, edra, Hmer\_kataskeuhs, Pliroma, Xiliometra) VALUES ('YOI7867', Poli\_ref, date'2005-2-1', Pliroma\_ref, 100000);

end;

declare

poli\_ref REF poli\_type;

pliroma\_ref REF pliroma\_type;

begin

SELECT REF(P) INTO poli\_ref FROM Poli\_table P WHERE P.Onoma = 'Florina';

SELECT REF(P) INTO pliroma\_ref FROM Pliroma\_table P WHERE P.Onoma = 'delta';

INSERT INTO Leoforeio\_table (Arithmos, edra, Hmer\_kataskeuhs, Pliroma, Xiliometra) VALUES

('PAY4532', Poli\_ref, date'2004-9-1', Pliroma\_ref, 150000);

end;

-- DROMOLOGIO\_TABLE

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(10, afetiria\_ref, proorismos\_ref, 'Deutera', TIME(10,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(20, afetiria\_ref, proorismos\_ref, 'Triti', TIME(10,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(30, afetiria\_ref, proorismos\_ref, 'Tetarti', TIME(10,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(40, afetiria\_ref, proorismos\_ref, 'Pempti', TIME(10,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(50, afetiria\_ref, proorismos\_ref, 'Paraskeui', TIME(10,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(60, afetiria\_ref, proorismos\_ref, 'Sabbato', TIME(10,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(70, afetiria\_ref, proorismos\_ref, 'Kuriaki', TIME(10,0), leoforeio\_ref, 50);

end;

-- epistrofi

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(80, afetiria\_ref, proorismos\_ref, 'Deutera', TIME(20,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(90, afetiria\_ref, proorismos\_ref, 'Triti', TIME(20,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(100, afetiria\_ref, proorismos\_ref, 'Tetarti', TIME(20,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(110, afetiria\_ref, proorismos\_ref, 'Pemti', TIME(20,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(120, afetiria\_ref, proorismos\_ref, 'Paraskeui', TIME(20,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(130, afetiria\_ref, proorismos\_ref, 'Sabbato', TIME(20,0), leoforeio\_ref, 50);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Athina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NHE1010';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(140, afetiria\_ref, proorismos\_ref, 'Kuriaki', TIME(20,0), leoforeio\_ref, 50);

end;

-- ALLA

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Florina';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Larisa';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NEE9990';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(210, afetiria\_ref, proorismos\_ref, 'Kuriaki', TIME(15,0), leoforeio\_ref, 30);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Larisa';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Florina';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'NEE9990';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(220, afetiria\_ref, proorismos\_ref, 'Deutera', TIME(8,0), leoforeio\_ref, 30);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Larisa';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'YOI7867';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(310, afetiria\_ref, proorismos\_ref, 'Triti', TIME(8,0), leoforeio\_ref, 10);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Larisa';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'YOI7867';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(320, afetiria\_ref, proorismos\_ref, 'Triti', TIME(12,0), leoforeio\_ref, 10);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Larisa';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'YOI7867';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(330, afetiria\_ref, proorismos\_ref, 'Tetarti', TIME(8,0), leoforeio\_ref, 10);

end;

declare

afetiria\_ref REF poli\_type;

proorismos\_ref REF poli\_type;

leoforeio\_ref REF leoforeio\_type;

begin

SELECT REF(P) INTO afetiria\_ref FROM Poli\_table P WHERE P.Onoma = 'Larisa';

SELECT REF(P) INTO proorismos\_ref FROM Poli\_table P WHERE P.Onoma = 'Thessaloniki';

SELECT REF(L) INTO leoforeio\_ref FROM leoforeio\_table L WHERE L.Arithmos = 'YOI7867';

INSERT INTO Dromologio\_table (Arithmos, Afetiria, Proorismos, Hmera\_dromologiou, Ora\_dromologiou, Leoforeio, Timi\_Eisitiriou) VALUES

(340, afetiria\_ref, proorismos\_ref, 'Tetarti', TIME(12,0), leoforeio\_ref, 10);

end;

--

DROP TABLE Dromologio\_TABLE;

DROP TABLE Leoforeio\_TABLE;

DROP TABLE Pliroma\_TABLE;

DROP TABLE Ypallilos\_TABLE;

DROP TABLE Poli\_TABLE;

DROP TYPE Dromologio\_TYPE;

DROP TYPE Leoforeio\_TYPE;

DROP TYPE Pliroma\_TYPE;

DROP TYPE Odigos\_TYPE;

DROP TYPE Synodos\_TYPE;

DROP TYPE Ypallilos\_TYPE;

DROP TYPE Poli\_TYPE;