

ΙΟΝΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ

Τμήμα Πληροφορικής



- **Μάθημα:**

Βάσεις Δεδομένων II, 2017-2018

- **Μέλη Ομάδας:**

1. Αθανάσιος Αθανασίου, Π2015073
2. Αλέξανδρος Ζαχαριάδης, Π2015082
3. Χρύσα Τσιβιντζέλη, Π2015185

Β' Ζητούμενο:

Ερώτημα 1:

```
SELECT CENTER_ID AS ΚΩΔΙΚΟΣ_ΔΟΜΗΣ, TITLE AS ΕΠΩΝΥΜΙΑ  
FROM TRAINING_CENTER  
WHERE TITLE LIKE '%Α.Ε.%' AND CITY = 'Πάτρα';
```

ΚΩΔΙΚΟΣ_ΔΟΜΗΣ	ΕΠΩΝΥΜΙΑ
512	Ορίζοντες Α.Ε.

Ερώτημα 2:

```
SELECT AVG(VOUCHER_VALUE) AS ΜΕΣ_ΑΞ_ΕΠΙΤ_ΚΑΤ  
FROM VOUCHER_CALL;
```

ΜΕΣ_ΑΞ_ΕΠΙΤ_ΚΑΤ
4856

Ερώτημα 3:

```
SELECT COUNT(CLASS_ID) AS ΑΡ_ΠΡΩ_ΠΟΥ_ΟΛΟΚΛ  
FROM VOUCHER_CLASS  
WHERE STATUS = 'Ολοκληρωμένο' AND TIME_ZONE = 'Πρωινό';
```

ΑΡ_ΠΡΩ_ΠΟΥ_ΟΛΟΚΛ
2

Ερώτημα 4:

```
SELECT TAX_ID AS ΑΦΜ, FULL_NAME AS ΟΝΟΜΑΤΕΠΩΝΥΜΟ, SEX AS ΦΥΛΟ,  
BIRTH_YEAR AS ΗΛΙΚΙΑ  
FROM BENEFICIARY  
WHERE BIRTH_YEAR < '12/01/1997' AND BIRTH_YEAR > '12/01/1988';
```

ΑΦΜ	ΟΝΟΜΑΤΕΠΩΝΥΜΟ	ΦΥΛΟ	ΗΛΙΚΙΑ
59056316	Μαρία Χριστοδούλου	Θ	12/01/1991
58245987	Λάζαρος Χριστίδης	Α	12/01/1993
56047895	Βασιλική Καντόρου	Θ	12/01/1990
48046418	Αριστείδης Τρικόπουλος	Α	12/01/1990

Ερώτημα 5:

```
SELECT COUNT(DISTINCT TAX_ID) AS ΑΡ_ΩΦΕΛ_ΣΕ_ΑΝΑΜ  
FROM REGISTERED, VOUCHER_CLASS
```

WHERE STATUS = 'Σε Προγραμματισμό' AND REGISTERED.CLASS_ID =
VOUCHER_CLASS.CLASS_ID;

ΑΡ_ΩΦΕΛ_ΣΕ_ΑΝΑΜ
5

Ερώτημα 6:

```
SELECT VOUCHER_CALL.CALL_ID AS ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ, DESCRIPTION AS
ΠΕΡΙΓΡΑΦΗ, REGISTRATION_DATE AS ΗΜΕΡΟΜ_ΕΓΓΡΑΦΗΣ
FROM VOUCHER_CALL, PARTICIPATES, TRAINING_CENTER
WHERE TRAINING_CENTER.TITLE = 'Ορίζοντες Α.Ε.' AND
TRAINING_CENTER.CENTER_ID = PARTICIPATES.CENTER_ID AND
PARTICIPATES.CALL_ID = VOUCHER_CALL.CALL_ID
ORDER BY REGISTRATION_DATE;
```

ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ	ΠΕΡΙΓΡΑΦΗ	ΗΜΕΡΟΜ_ΕΓΓΡΑΦΗΣ
5	Επιταγή κατάρτισης ανέργων σε τομείς οικονομικής δραστηριότητας με υποχρεωτική εγγυημένη απασχόληση	09/01/2016
3	Επιταγή εισόδου για νέους ηλικίας από 25 έως 29 ετών σε ιδιωτικές επιχειρήσεις για απόκτηση εργασιακής εμπειρίας	09/01/2016
1	Κατάρτιση ανέργων σε θέματα μεταρρύθμισης για το πρωτοβάθμιο εθνικό δίκτυο υγείας	01/01/2017
4	Επιταγή επαγγελματικής κατάρτισης φορτοεκφορτωτών ξηράς - λιμένος	01/01/2017

Ερώτημα 7:

```
CREATE OR REPLACE VIEW CALL_COUNT AS
SELECT CALL_ID, COUNT(CALL_ID) AS C_CALL_ID
FROM SEL
GROUP BY CALL_ID
```

```
SELECT VOUCHER_CALL.CALL_ID AS ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ, BUDGET AS
ΠΡΟΥΠΟΛΟΓΙΣΜΟΣ, VOUCHER_VALUE*C_CALL_ID AS ΣΥΝ_ΑΞΙΑ_ΕΠΙΤ
FROM CALL_COUNT, VOUCHER_CALL
WHERE CALL_COUNT.CALL_ID = VOUCHER_CALL.CALL_ID
```

ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ	ΠΡΟΥΠΟΛΟΓΙΣΜΟΣ	ΣΥΝ_ΑΞΙΑ_ΕΠΙΤ
1	14400000	96000
2	45000000	13440
3	108000000	24000
4	6435000	6000
5	112000000	32400

Ερώτημα 8:

```
CREATE OR REPLACE VIEW ONGOING_CLASS AS
SELECT TAX_ID
FROM VOUCHER_CLASS, REGISTERED
WHERE VOUCHER_CLASS.CLASS_ID = REGISTERED.CLASS_ID AND STATUS = 'Σε
Υλοποίηση'
GROUP BY TAX_ID
HAVING COUNT(TAX_ID) > 1
```

```
SELECT BENEFICIARY.TAX_ID AS ΑΦΜ, FULL_NAME AS ΟΝΟΜΑΤΕΠΩΝΥΜΟ
FROM BENEFICIARY, ONGOING_CLASS
WHERE BENEFICIARY.TAX_ID = ONGOING_CLASS.TAX_ID
```

ΑΦΜ	ΟΝΟΜΑΤΕΠΩΝΥΜΟ
35678456	Ελένη Αυγερίου
56047895	Βασιλική Καντόρου
59056316	Μαρία Χριστοδούλου
58245987	Λάζαρος Χριστίδης

Ερώτημα 9:

```
SELECT DISTINCT SEL.TAX_ID AS ΑΦΜ, FULL_NAME AS ΟΝΟΜΑΤΕΠΩΝΥΜΟ,
BIRTH_YEAR AS ΕΤΟΣ_ΓΕΝΝΗΣΗΣ
FROM BENEFICIARY, SEL
WHERE BENEFICIARY.TAX_ID NOT IN(SELECT TAX_ID
FROM SEL
WHERE CALL_ID = 4)
AND BENEFICIARY.TAX_ID = SEL.TAX_ID
```

ΑΦΜ	ΟΝΟΜΑΤΕΠΩΝΥΜΟ	ΕΤΟΣ_ΓΕΝΝΗΣΗΣ
48046418	Αριστείδης Τρικόπουλος	12/01/1990
51045617	Αγγελική Ευθυμιοπούλου	12/01/1987
56047895	Βασιλική Καντόρου	12/01/1990

Ερώτημα 10:

```
SELECT DISTINCT TAX_ID AS ΑΦΜ, FULL_NAME AS ΟΝΟΜΑΤΕΠΩΝΥΜΟ
FROM BENEFICIARY
WHERE TAX_ID IN(SELECT TAX_ID
FROM SEL
WHERE CALL_ID = 1)
AND TAX_ID IN(SELECT TAX_ID
```

```
FROM TRAINING_CENTER, INCLUDED
WHERE TITLE = 'Κατάρτιση Α.Ε.' AND TRAINING_CENTER.CENTER_ID =
INCLUDED.CENTER_ID)
```

ΑΦΜ	ΟΝΟΜΑΤΕΠΩΝΥΜΟ
49036418	Ιωάννης Τέλογλου
51045617	Αγγελική Ευθυμιοπούλου
56047895	Βασιλική Καντόρου
59056316	Μαρία Χριστοδούλου

Ερώτημα 11:

```
CREATE OR REPLACE VIEW CALL_COUNT AS
SELECT CALL_ID, COUNT(CALL_ID) AS C_CALL_ID
FROM SEL
GROUP BY CALL_ID
```

```
CREATE OR REPLACE VIEW CALL_EXPENSES AS
SELECT VOUCHER_CALL.CALL_ID, BUDGET, VOUCHER_VALUE*C_CALL_ID AS
SUM_VALUE
FROM CALL_COUNT, VOUCHER_CALL
WHERE CALL_COUNT.CALL_ID = VOUCHER_CALL.CALL_ID
```

```
SELECT CALL_ID AS ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ, BUDGET AS ΠΡΟΥΠΟΛΟΓΙΣΜΟΣ, SUM_VALUE
AS ΣΥΝ_ΑΞΙΑ_ΕΠΙΤ
FROM CALL_EXPENSES
WHERE SUM_VALUE IN(SELECT MAX(SUM_VALUE)
FROM CALL_EXPENSES)
```

ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ	ΠΡΟΥΠΟΛΟΓΙΣΜΟΣ	ΣΥΝ_ΑΞΙΑ_ΕΠΙΤ
1	14400000	96000

Ερώτημα 12:

```
CREATE OR REPLACE VIEW BENEF_DATA AS
SELECT DISTINCT TAX_ID, FULL_NAME
FROM BENEFICIARY
WHERE TAX_ID IN(SELECT TAX_ID
FROM REGISTERED, VOUCHER_CLASS
WHERE REGISTERED.CLASS_ID = VOUCHER_CLASS.CLASS_ID AND (STATUS
= 'Σε Υλοποίηση' OR STATUS = 'Ολοκληρωμένο'))
```

```
CREATE OR REPLACE VIEW CLASS_NUM AS
SELECT TAX_ID, COUNT(TAX_ID) AS CLASS_COUNT
FROM SEL
GROUP BY TAX_ID
HAVING COUNT(TAX_ID) > 2
```

```
SELECT DISTINCT BENEF_DATA.TAX_ID AS ΑΦΜ, FULL_NAME AS ΟΝΟΜΑΤΕΠΩΝΥΜΟ,
CLASS_COUNT AS ΑΡ_ΠΡΟΣΚΛΗΣΕΩΝ
FROM BENEF_DATA, CLASS_NUM
WHERE BENEF_DATA.TAX_ID = CLASS_NUM.TAX_ID
ORDER BY FULL_NAME DESC
```

ΑΦΜ	ΟΝΟΜΑΤΕΠΩΝΥΜΟ	ΑΡ_ΠΡΟΣΚΛΗΣΕΩΝ
47096457	Τρύφωνας Μπαλτέας	4
59056316	Μαρία Χριστοδούλου	5
58245987	Λάζαρος Χριστίδης	5
49036418	Ιωάννης Τέλογλου	4
35678456	Ελένη Αυγερίου	5
56047895	Βασιλική Καντόρου	3
48046418	Αριστείδης Τρικόπουλος	3
51045617	Αγγελική Ευθυμιοπούλου	4

Ερώτημα 13:

```
CREATE OR REPLACE VIEW CHECK_DATA AS
SELECT SEL.TAX_ID, SEL.CALL_ID, VOUCHER_ID, VOUCHER_VALUE
FROM SEL, VOUCHER_CALL
WHERE SEL.CALL_ID = VOUCHER_CALL.CALL_ID
```

```
CREATE OR REPLACE VIEW COM_CHECK_DATA AS
SELECT CHECK_DATA.TAX_ID, CHECK_DATA.CALL_ID, VOUCHER_ID,
VOUCHER_VALUE
FROM CHECK_DATA, INCLUDED
WHERE CHECK_DATA.TAX_ID = INCLUDED.TAX_ID AND CHECK_DATA.CALL_ID =
INCLUDED.CALL_ID
```

```
SELECT VOUCHER_ID AS ΚΩΔ_ΕΠΙΤΑΓΗΣ, TAX_ID AS ΑΦΜ_ΩΦΕΛΟΥΜ, CALL_ID AS
ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ, VOUCHER_VALUE AS ΑΞΙΑ_ΕΠΙΤΑΓΗΣ
FROM CHECK_DATA
WHERE VOUCHER_ID NOT IN(SELECT VOUCHER_ID
FROM COM_CHECK_DATA)
```

ΚΩΔ_ΕΠΙΤΑΓΗΣ	ΑΦΜ_ΩΦΕΛΟΥΜ	ΚΩΔ_ΠΡΟΣΚΛΗΣΗΣ	ΑΞΙΑ_ΕΠΙΤΑΓΗΣ
72456	35678456	4	1200
69999	59056316	4	1200

Ερώτημα 14:

```
UPDATE BENEFICIARY
SET FULL_NAME = 'Μαρία Χριστοδουλοπούλου'
WHERE UNEMPLOYMENT_CARD = 7852469785214563
```

```
INSERT INTO BENEFICIARY VALUES (37561284, 2194318520782694, 'Αλέξανδρος
Ζαχαριάδης', TO_DATE('1997', 'YYYY'), 'Α', 'Αμπελοκήπων 14, Κομοτηνή');
```

```
INSERT INTO SEL VALUES (37561284 , 5, 69788, TO_DATE('01/02/2017',
'DD/MM/YYYY'),TO_DATE('31/03/2017', 'DD/MM/YYYY'));
```

Ερώτημα 15:

```
UPDATE VOUCHER_CLASS
SET STATUS = 'Σε Υλοποίηση'
WHERE STATUS = 'Σε Προγραμματισμό'
```

Ερώτημα 16:

```
ALTER TABLE BENEFICIARY
ADD NUM_PARTICIPATIONS NUMBER;
```

```
CREATE OR REPLACE VIEW NUM_CLASS AS
SELECT TAX_ID, COUNT(TAX_ID) AS CLASS_COUNT
FROM SEL
GROUP BY TAX_ID
```

```
UPDATE BENEFICIARY
SET NUM_PARTICIPATIONS = (SELECT CLASS_COUNT
FROM NUM_CLASS
WHERE NUM_CLASS.TAX_ID = BENEFICIARY.TAX_ID)
```

Ερώτημα 17:

```
CREATE TABLE CALL_STATISTICS (
Call_ID NUMBER NOT NULL UNIQUE,
Beneficiaries_Num NUMBER NOT NULL,
Beneficiaries_Incl_Num NUMBER NOT NULL,
FOREIGN KEY(Call_ID) REFERENCES VOUCHER_CALL(Call_ID));
```

```
DROP TABLE CALL_STATISTICS;
```

```
INSERT ALL
```

```
  INTO "CALL_STATISTICS" VALUES (1, (SELECT COUNT(Tax_ID) FROM SEL WHERE  
Call_ID = 1), (SELECT COUNT(Tax_ID) FROM INCLUDED WHERE Call_ID = 1))
```

```
  INTO "CALL_STATISTICS" VALUES (2, (SELECT COUNT(Tax_ID) FROM SEL WHERE  
Call_ID = 2), (SELECT COUNT(Tax_ID) FROM INCLUDED WHERE Call_ID = 2))
```

```
  INTO "CALL_STATISTICS" VALUES (3, (SELECT COUNT(Tax_ID) FROM SEL WHERE  
Call_ID = 3), (SELECT COUNT(Tax_ID) FROM INCLUDED WHERE Call_ID = 3))
```

```
  INTO "CALL_STATISTICS" VALUES (4, (SELECT COUNT(Tax_ID) FROM SEL WHERE  
Call_ID = 4), (SELECT COUNT(Tax_ID) FROM INCLUDED WHERE Call_ID = 4))
```

```
  INTO "CALL_STATISTICS" VALUES (5, (SELECT COUNT(Tax_ID) FROM SEL WHERE  
Call_ID = 5), (SELECT COUNT(Tax_ID) FROM INCLUDED WHERE Call_ID = 5))
```

```
SELECT * FROM DUAL;
```

```
5 row(s) inserted.
```

```
0.21 seconds
```

```
SELECT *
```

```
FROM CALL_STATISTICS;
```

CALL_ID	BENEFICIARIES_NUM	BENEFICIARIES_INCL_NUM
1	8	8
2	8	8
3	6	6
4	5	3
5	7	6

Ερώτημα 18:

```
DELETE FROM VOUCHER_CLASS
```

```
WHERE STATUS = 'Σε Προγραμματισμό' AND CLASS_ID NOT IN(SELECT CLASS_ID  
FROM REGISTERED)
```


Γ' Ζητούμενο:

A' Συνάρτηση (user defined function): παίρνει ως input το όνομα του Beneficiary και επιστρέφει ως output το ΑΦΜ του. Σε περίπτωση που δεν υπάρχει, επιστρέφει την τιμή 0.

```
CREATE OR REPLACE Function FindName
```

```
( name_in IN varchar2 )
```

```
RETURN number
```

```
IS
```

```
  cnumber number;
```

```
  cursor c1 is
```

```
  SELECT Tax_ID
```

```
    FROM Beneficiary
```

```
   WHERE Full_Name = name_in;
```

```
BEGIN
```

```
  open c1;
```

```
  fetch c1 into cnumber;
```

```
  if c1%notfound then
```

```
    cnumber := 0;
```

```
  end if;
```

```
  close c1;
```

```
RETURN cnumber;
```

```
EXCEPTION
```

```
WHEN OTHERS THEN
```

```
  raise_application_error(-20001,'An error was encountered - '||SQLCODE||' -ERROR-  
  '||SQLERRM);
```

```
END;
```

- Παράδειγμα με όνομα που υπάρχει στο πίνακα Beneficiary:

```
DECLARE
```

```
  c varchar(50);
```

```
BEGIN
```

```
  c := FindName('Ιωάννης Τέλογλου');
```

```
  dbms_output.put_line('TAX_ID: ' || c);
```

```
END;
```

```
TAX_ID: 49036418
```

```
Statement processed.
```

```
0.01 seconds
```

- Παράδειγμα με όνομα που δεν υπάρχει στο πίνακα Beneficiary:

```
DECLARE
```

```
  c varchar(50);
```

```
BEGIN
```

```
  c := FindName('Χρύσα Τσιβιντζέλη');
```

```
  dbms_output.put_line('TAX_ID: ' || c);
```

```
END;
```

```
TAX_ID: 0
```

```
Statement processed.
```

```
0.00 seconds
```

B' Συνάρτηση (User Defined Function): παίρνει ως input τον μοναδικό κωδικό πρόσκλησης, call_id, και επιστρέφει ως output τον αριθμό των ατόμων που έχουν εγγραφεί σε αυτό.

```
CREATE OR REPLACE Function ReturnCount
```

```
( call_id_in IN number )
```

```
  RETURN number
```

```
IS
```

```
  cnumber number;
```

```
  cursor c1 is
```

```
    SELECT COUNT(call_id)
```

```
    FROM sel
```

```
    WHERE call_id = call_id_in;
```

```
BEGIN
```

```
  open c1;
```

```
  fetch c1 into cnumber;
```

```
  if c1%notfound then
```

```
    cnumber := 0;
```

```
  end if;
```

```

close c1;

RETURN cnumber;

EXCEPTION
WHEN OTHERS THEN
    raise_application_error(-20001,'An error was encountered - '||SQLCODE||' -ERROR-
    '||SQLERRM);
END;

```

- Παράδειγμα με Call_ID που υπάρχει στο πίνακα, το 5:

```

DECLARE
    c varchar(50);
BEGIN
    c := ReturnCount(5);
    dbms_output.put_line('Number of people in selected call: ' || c);
END;

```

Number of people in selected call: 7

Statement processed.

0.00 seconds

A' Διαδικασία (User Defined Stored Procedure): παίρνει ως input το όνομα του Beneficiary που θέλουμε να διαγράψουμε και επιστρέφει ως output το ΑΦΜ του, για να επιβεβαιώσει την επιτυχή διαγραφή. Σε περίπτωση που δεν υπάρχει το όνομα που θα ζητηθεί, επιστρέφει την τιμή 0.

```

CREATE OR REPLACE Procedure RemoveBeneficiary
( name_in IN varchar2 )

```

```

IS
    cnumber number;

    cursor c1 is
    SELECT Tax_ID
    FROM Beneficiary
    WHERE full_name = name_in;

BEGIN

```

```
open c1;  
fetch c1 into cnumber;
```

```
if c1%notfound then  
    cnumber := 0;  
end if;
```

```
DELETE FROM Beneficiary  
WHERE Beneficiary.Tax_ID = cnumber;
```

```
close c1;
```

```
DBMS_OUTPUT.PUT_LINE('Removed Beneficiary of Tax_ID: '|| cnumber);
```

```
EXCEPTION
```

```
WHEN OTHERS THEN
```

```
    raise_application_error(-20001,'An error was encountered - '||SQLCODE||' -ERROR-  
'||SQLERRM);  
END;
```

- Παράδειγμα με όνομα που υπάρχει στον πίνακα Beneficiary:

```
INSERT INTO Beneficiary (Tax_ID, Unemployment_Card, Full_Name, Birth_Year, Sex,  
Home_Address)  
VALUES (049556418, 1254785329635425, 'Χρύσα Τσιβιντζέλη', '1-1-1997', 'Θ', 'Κοραή 14');
```

```
BEGIN
```

```
RemoveBeneficiary('Χρύσα Τσιβιντζέλη');
```

```
END;
```

```
Removed Beneficiary of Tax_ID: 49556418
```

```
Statement processed.
```

```
0.00 seconds
```

- Παράδειγμα με όνομα που δεν υπάρχει στο πίνακα Beneficiary:

```
BEGIN
```

```
RemoveBeneficiary('Αριστοτέλης Συμεωνίδης');
```

```
END;
```

Removed Beneficiary of Tax_ID: 0

Statement processed.

0.00 seconds

B' Διαδικασία (User Defined Stored Procedure): γεμίζει ένα καινούριο πίνακα, total_value, με τις τιμές του call_id που δίνει κάθε φορά ο χρήστης στη μία στήλη, call_id, και το συνολικό ποσό που δώθηκε από τις επιταγές για κάθε ένα από αυτά στη δεύτερη στήλη, total_number.

```
CREATE TABLE total_value ( call_id number, total_number number );  
DROP TABLE total_value;
```

```
CREATE OR REPLACE Procedure UpdateTotal  
  ( call_id_in IN number )
```

```
IS
```

```
  cnumber number;  
  count1 number;
```

```
  cursor c1 is  
  SELECT voucher_value  
  FROM voucher_call  
  WHERE call_id = call_id_in;
```

```
BEGIN
```

```
  open c1;  
  fetch c1 into cnumber;
```

```
  if c1%notfound then  
    cnumber := 0;  
  end if;
```

```
  SELECT COUNT(call_id)  
  INTO count1  
  FROM sel  
  WHERE call_id = call_id_in;
```

```
  INSERT INTO total_value ( call_id, total_number )
```

```
VALUES ( call_id_in, (cnumber*count1) );
```

```
close c1;
```

```
EXCEPTION
```

```
WHEN OTHERS THEN
```

```
    raise_application_error(-20001,'An error was encountered - '||SQLCODE||' -ERROR-  
'||SQLERRM);
```

```
END;
```

- Παράδειγμα με το call_id 5:

```
BEGIN
```

```
UpdateTotal(5);
```

```
END;
```

```
Statement processed.
```

```
0.00 seconds
```

- Τελικός πίνακας με αποτελέσματα:

```
SELECT *
```

```
FROM total_value;
```

CALL_ID	TOTAL_NUMBER
1	96000
2	13440
3	24000
4	6000
5	37800

A' Σκανδάλη (Trigger):

```
CREATE OR REPLACE TRIGGER PrintNewStatus
```

```
BEFORE UPDATE
```

```
ON voucher_class
```

```
FOR EACH ROW
```

```
WHEN (NEW.Status <> OLD.Status)
```

```
BEGIN
```

```
    dbms_output.put_line('There has been an update on Status');
```

```
    dbms_output.put_line('Class_ID: ' || :OLD.Class_ID);
```

```

dbms_output.put_line('Old Status: ' || :OLD.Status);
dbms_output.put_line('Updated Status: ' || :NEW.Status);
END;

```

- Παράδειγμα:

```

UPDATE voucher_class
SET status = 'Σε Προγραμματισμό'
WHERE class_id = 11;

There has been an update on Status
Class_ID: 11
Old Status: Ολοκληρωμένο
Updated Status: Σε Προγραμματισμό

1 row(s) updated.

0.01 seconds

```

B' Σκανδάλη (Trigger): (before insert) εμφανίζει τα στοιχεία ΑΦΜ, όνομα, ημερομηνία γέννησης και τον αριθμό δελτίου ανεργίας του καινούριου ωφελούμενου μόλις γίνει το insert στο πίνακα Beneficiary.

```

CREATE OR REPLACE TRIGGER PrintNewBeneficiary
BEFORE INSERT
ON BENEFICIARY
FOR EACH ROW
BEGIN
  dbms_output.put_line('New Entry');
  dbms_output.put_line('Tax ID: ' || :NEW.Tax_ID);
  dbms_output.put_line('Full Name: ' || :NEW.Full_Name);
  dbms_output.put_line('Birth Year: ' || :NEW.Birth_Year);
  dbms_output.put_line('Unemployment Card ID: ' || :NEW.Unemployment_Card);
end;

```

- Παράδειγμα:

```

INSERT INTO Beneficiary (Tax_ID, Unemployment_Card, Full_Name, Birth_Year, Sex,
Home_Address)
VALUES (049556418, 1254785329635425, 'Χρύσα Τσιβιντζέλη', '1-1-1997', 'Θ', 'Κοραή 14');

```

New Entry
Tax ID: 49556418
Full Name: Χρύσα Τσιβιντζέλη
Birth Year: 01/01/1997
Unemployment Card ID: 1254785329635425

1 row(s) inserted.

0.16 seconds