

# Εργαστήριο Βάσεων Δεδομένων

## Άσκηση 4

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```
-- Απάντηση 1:
SELECT NumOfCopies
FROM book
WHERE Title LIKE 'Μαθηματική ανάλυση';

-- Απάντηση 2:
SELECT count( * )
FROM lending
WHERE Borrower
IN (
    SELECT p.AT
    FROM person AS p, borrower AS b
    WHERE p.Name = 'Αριστείδης'
    AND p.Surname = 'Φραγκούλης'
    AND p.AT = b.AT
);

-- Απάντηση 3:
SELECT category.Title, count( * )
FROM category, belong
WHERE category.ID = belong.ID
GROUP BY category.ID;

-- Απάντηση 4:
SELECT count( * )
FROM category
WHERE HyperCategory =3234;

-- Απάντηση 5:
SELECT Title
FROM category
WHERE ID
IN (
    SELECT ID
    FROM belong, book
    WHERE belong.ISBN = book.ISBN
    AND book.Title = 'The Tragedy of Macbeth'
);

-- Απάντηση 6:
SELECT writer.id, name, surname
FROM writer, writes
WHERE writer.id = writes.id
GROUP BY writer.id
HAVING count( writer.id ) >=
ALL (
    SELECT count( writer.id )
    FROM writer, writes
    WHERE writer.id = writes.id
    GROUP BY writer.id
);

-- Απάντηση 7:
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SELECT count( * )
FROM book
WHERE Publisher = 'Oxford University Press'
AND ISBN
IN (
    SELECT ISBN
    FROM writer, writes
    WHERE writer.ID = writes.ID
    AND Name = 'Robert'
    AND Surname = 'Dallek'
);

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-- Απόκριση 8:

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SELECT avg( temp.num )
FROM (
    SELECT count( * ) AS num
    FROM writes
    GROUP BY ISBN
) AS temp;

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-- Απόκριση 9:

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GRANT SELECT ON AM4064.* TO User4064;
GRANT INSERT,ALTER ON AM4064.lending TO User4064;

```

-- Απόκριση 10:

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SELECT name, surname
FROM person AS p, borrower AS b
WHERE p.AT = b.AT
AND b.AT
IN (
    SELECT borrower
    FROM lending AS l, participate AS p
    WHERE l.ID = p.ID
    GROUP BY p.id
    HAVING count( p.id ) =2
)
AND p.AT NOT
IN (
    SELECT AT
    FROM librarian
);

```

-- Απόκριση 11:

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SELECT name, surname, count( l.AT ) AS danismi
FROM librarian AS l, person AS p, lending AS b
WHERE l.AT = p.AT
AND b.librarian = l.AT
GROUP BY l.AT
ORDER BY danismi DESC
LIMIT 0 , 3;

```

-- Απόκριση 12:

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-- vriskei gia ena danizomeno me vasi AT tou--
SELECT w.Name, w.Surname, count(*) FROM lending as l, participate as p, writes
as s, writer as w, borrower as b, person as
a where l.ID=p.ID and p.ISBN=s.ISBN and w.ID=s.ID and b.AT=l.Borrower and
b.AT=a.AT and b.AT='A786543'

```

```

group by w.ID
having count(*) >= all (
SELECT count(*) FROM lending as l, participate as p, writes as s, writer as w,
borrower as b, person as a where l.ID=p.ID
and p.ISBN=s.ISBN and w.ID=s.ID and b.AT=l.Borrower and b.AT=a.AT and
b.AT='A786543'
group by w.ID
);
-- vriskei gia olous mono ena pio dimofili--
SELECT *
FROM (
    SELECT a.AT, a.Name AS na, a.Surname AS su, w.Name, w.Surname, count( * )
    FROM lending AS l, participate AS p, writes AS s, writer AS w, borrower AS
b, person AS a
    WHERE l.ID = p.ID
    AND p.ISBN = s.ISBN
    AND w.ID = s.ID
    AND b.AT = l.Borrower
    AND b.AT = a.AT
    GROUP BY a.AT, w.ID
    ORDER BY count( * ) DESC
) AS temp
GROUP BY AT;

```

-- Απόκριση 13:

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(
    SELECT name, surname, count( writes.isbn )
    FROM writer
    INNER JOIN writes ON writer.id = writes.id
    GROUP BY writer.id
    HAVING count( writes.isbn ) =1
)
INTERSECT
(
    SELECT name, surname, count( writes.isbn )
    FROM writer
    INNER JOIN writes ON writer.id = writes.id
    GROUP BY writer.id
    HAVING count( writes.isbn ) =2
);

```

-- Απόκριση 14:

```

SELECT title
FROM category
WHERE id
IN (

    SELECT HyperCategory
    FROM category
    WHERE id =116621
)
UNION
SELECT title
FROM category
WHERE id
IN (

    SELECT HyperCategory
    FROM category
    WHERE id
    IN (

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```

        SELECT HyperCategory
        FROM category
        WHERE id =116621
    )
)
UNION
SELECT title
FROM category
WHERE id
IN (

    SELECT HyperCategory
    FROM category
    WHERE id
    IN (

        SELECT HyperCategory
        FROM category
        WHERE id
        IN (

            SELECT HyperCategory
            FROM category
            WHERE id =116621
        )
    )
);

-- Απόνιση 15:
CREATE procedure cell(IN name1 VARCHAR(25),IN surname1 VARCHAR(25))
BEGIN
declare AT1 varchar(8);
SELECT AT into AT1 FROM person WHERE Name=name1 and Surname=surname1;
SELECT number FROM phones WHERE AT=AT1 and Ph_Type="Κινητό";
end$

-- Απόνιση 16:
CREATE procedure elegxos(IN Title1 varchar(90))
BEGIN
declare num int(11);
SELECT NumOfCopies into num FROM book WHERE Title=Title1;
if (num>0)
then UPDATE book SET NumOfCopies=NumOfCopies-1 WHERE Title=Title1;
else
SELECT 'Ο danismos den ginete';
END IF;
end$

-- Απόνιση 17:
CREATE TRIGGER dec_copies1 BEFORE INSERT ON participate FOR EACH ROW
UPDATE book SET NumOfCopies= NumOfCopies-1 WHERE ISBN = NEW.ISBN;
$

-- Απόνιση 18:
create procedure epistrofi( IN in_AT varchar(8),IN in_ISBN char(13))
BEGIN
DECLARE current_day DATE;
DECLARE not_found INT;
DECLARE ret_day DATE;
DECLARE flag INT;

DECLARE lend_cursor CURSOR FOR SELECT returningDate FROM lending WHERE
Borrower=in_AT ;

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DECLARE CONTINUE HANDLER FOR NOT FOUND SET not_found =1;
OPEN lend_cursor;
SET not_found =0;
SET flag =0;
REPEAT
FETCH lend_cursor INTO
ret_day;
  IF (not_found =0 AND ret_day IS NULL)
THEN
BEGIN
SET flag=1;
UPDATE lending SET returningDate = CURDATE() WHERE Borrower = in_AT AND
returningDate IS NULL ;
UPDATE book SET NumOfCopies= NumOfCopies+1 WHERE ISBN = in_ISBN;
END;
END IF;
UNTIL (not_found =1)
END REPEAT;
CLOSE lend_cursor;
IF(flag=0)
THEN select  'I egrafi den iparxei';
END IF;
END$

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-- Απόκριση 19:

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create procedure diagرافي_cat( IN in_Title varchar(60))
BEGIN

DECLARE done INT;
DECLARE hyper  int(11);
DECLARE rep_ID  int(11);
DECLARE flag INT;

DECLARE cat_cursor CURSOR FOR SELECT ID,HyperCategory FROM category WHERE Title=
in_Title;
DECLARE CONTINUE HANDLER FOR NOT FOUND SET done =1;
OPEN cat_cursor;
SET done =0;
SET flag=0;
REPEAT
FETCH cat_cursor INTO
rep_ID,hyper;
IF (hyper IS NULL)
THEN
BEGIN
select 'Den iparxei iperkategoria, i diagرافي apagorevete';
SET done=1;
END;
elseif NOT (hyper IS NULL)
THEN
BEGIN
SET flag=1;
UPDATE belong SET ID=hyper WHERE ID =rep_ID;
UPDATE category SET HyperCategory =hyper WHERE HyperCategory =rep_ID;
SET done=1;
END;
END IF;
UNTIL (done =1)
END REPEAT;
CLOSE cat_cursor;
IF (flag=1)
THEN

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BEGIN
DELETE FROM category WHERE ID = rep_ID;
END;
END IF;
END$

-- Απόκριση 20:
create procedure kostos( )
BEGIN

DECLARE done INT;
DECLARE type varchar(10);
DECLARE ret_cost int(11);
DECLARE lend_ID int(11);
DECLARE lend_retDate date;
DECLARE lend_Borrower varchar(8);
DECLARE rest int(11);

DECLARE lending_cursor CURSOR FOR SELECT ID,lendingDate,Borrower FROM lending
WHERE returningDate IS NULL;
DECLARE CONTINUE HANDLER FOR NOT FOUND SET done =1;
OPEN lending_cursor;
SET done =0;
REPEAT
FETCH lending_cursor INTO
lend_ID ,lend_retDate ,lend_Borrower;
IF (done =0)
THEN
BEGIN
SET ret_cost=0;
SET rest =DATEDIFF(CURDATE(),lend_retDate);
SET type=( SELECT Br_Type from borrower where AT=lend_Borrower);
IF (type= 'Φοιτητής' AND rest>7 )
THEN
SET ret_cost=rest-7;
elseif ((type= 'Μέλος ΔΕΠ' OR type= 'Ερευνητής' ) AND rest>14)
THEN
SET ret_cost=rest-14;
END IF;
Select person.name,person.surname,person.AT, book.Title,book.ISBN,ret_cost from
lending
Inner join person on person.AT= lend_Borrower
Inner join participate on participate.ID=lend_ID
Inner join book on book.ISBN=participate.ISBN
Group by person.AT;
END;
END IF;
UNTIL (done =1)
END REPEAT;
CLOSE lending_cursor;
END$

```