

IZ - Laboratory to the lecture: Oracle Database - programming Task list No. 1

Task 1. Find the names of enemies who participated in incidents in 2009.

Enemy	Fault description
KAZIO	HE CAUGHT THE TAIL AND MADE A WIND
KAZIO	HE WANTED TO SKIN OFF
REKS	HE BARKED EXTREMELY RUDELY
BETHOVEN	HE DID NOT SHARE THE PORRIDGE
WILD BILL	HE TOOK THE

Task 2. Find all females cats who joined the herd between September 1, 2005. and July 31, 2007.

NAME	FUNCTION	WITH AS FROM
ZUZIA	CATCHING	2006-07-21
RUDA	NICE	2006-09-17

Task 3. Display the names, species and degrees of hostility of incorruptible enemies. Results sort in ascending order of hostility degree.

ENEMY	SPECIES	HOSTILITY DEGREE
SLIM	PINE	1
WILD BILL	DOG	10

Task 4. Display data on male cats collected in one column of the form:

JACEK called CAKE (fun. CATCHING) has been catching mice in band 2 since 2008-12-01

The results should be ordered in descending order for date entry to the herd. For the same date joining the herd, sort the results alphabetically by nickname.

```

ALL_ABOUT_MALE_CATS
-----
DUDEK called SMALL (fun. CAT) has been catching mice in band 4 since 2011-05-15
LUCEK called ZERO (fun. CAT) has been catching mice in band 3 since 2010-03-01
BARI called TUBE (fun. CATCHER) has been catching mice in band 2 since 2009-09-01
JACEK called CAKE (fun. CATCHING) has been catching mice in band 2 since 2008-12-01
KSAWERY called MAN (fun. CATCHER) has been catching mice in band 4 since 2008-07-12
PUCEK called REEF (fun. CATCHING) has been catching mice in band 4 since 2006-10-15
BOLEK called BALD (fun. THUG) has been catching mice in band 2 since 2006-08-15
KOREK called ZOMBIES (fun. THUG) has been catching mice in band 3 since 2004-03-16
CHYTRY called BOLEK (fun. DIVISIVE) has been catching mice in band 1 since 2002-05-05
MRUCZEK called TIGER (fun. BOSS) has been catching mice in band 1 since 2002-01-01

```

Task 5. Find the first occurrence of the letter A and the first occurrence of the letter L in each nickname and then replace the letters found with # and %, respectively. Use functions that work on strings. Only consider nicknames that contain both letters.

NICKNAME	After replacing A and L
BALD	B#%D
LADY	%#DY
LOLA	%OL#
SMALL	SM#%L

Task 6. Display the names of cats with at least 11 years of experience (which additionally joined the herd from March 1 to September 30), dates of their joining the herd, initial ration of mice (current ration, due to its increase after half a year of joining of cat to the herd, is 10% higher than the initial ration), the date of the mentioned increase by 10% and the current mice ration. Use appropriate functions working on dates.

In the solution presented below, the current date is 04.04.2020.

NAME	In herd	Ate	Increase	Eat
KOREK	2004-03-16	68	2004-09-16	75
BOLEK	2006-08-15	65	2007-02-15	72
ZUZIA	2006-07-21	59	2007-01-21	65
KSAWERY	2008-07-12	46	2009-01-12	51
CHYTRY	2002-05-05	45	2002-11-05	50
RUDA	2006-09-17	20	2007-03-17	22

Task 7. Display names, quarterly mice rations, and quarterly rations extra of all cats in which the ration of mice is greater than twice the ration extra but not smaller than 55.

NAME	MICE QUARTERLY	EXTRA QUARTERLY
MRUCZEK	309	99
KOREK	225	39
BOLEK	216	63
JACEK	201	0
PUCEK	195	0
ZUZIA	195	0
PUNIA	183	0
BARI	168	0

Task 8. Display for each cat (name) the following information about the total annual consumption of mice: the value of total consumption if it exceeds 660, 'Limit' if it is equal to 660, and 'Below 660' if it is less than 660. Do not use set operators (UNION, INTERSECT, MINUS).

NAME	Eats annually
BARI	672
BELA	Below 660
BOLEK	1116
CHYTRY	Below 660
DUDEK	Below 660
JACEK	804
KOREK	1056
KSAWERY	Below 660
LATKA	Below 660
LUCEK	Below 660
MELA	Below 660
MICKA	864
MRUCZEK	1632
PUCEK	780
PUNIA	732
RUDA	768
SONIA	Limit
ZUZIA	780

Task 9. After a few months suspending the issuance of mice, caused by the crisis, the Tiger resumed today payments on in accordance with the principle that cats that joined the herd in the first half of the month (with 15 day) receive the first ration of mice (after the break) on last Wednesday of this month, while cats that joined the herd after 15 day of the month receive their first ration of mice (after the break) on the last Wednesday of the next month. In the following months, mice are issued to all cats on the last Wednesday of the month.

Display for each cat its nickname, date of entry to the herd, and date of the first ration of mice after the break, assuming that the current date is **October 27** or **October 29, 2020**.

October 27

NICKNAME	IN HERD	PAYMENT
TIGER	2002-01-01	2020-10-28
BOLEK	2002-05-05	2020-10-28
ZOMBIES	2004-03-16	2020-11-25
FAST	2006-07-21	2020-11-25
BALD	2006-08-15	2020-10-28
LITTLE	2006-09-17	2020-11-25
REEF	2006-10-15	2020-10-28
HEN	2008-01-01	2020-10-28
MISS	2008-02-01	2020-10-28
MAN	2008-07-12	2020-10-28
LADY	2008-11-01	2020-10-28
CAKE	2008-12-01	2020-10-28
TUBE	2009-09-01	2020-10-28
LOLA	2009-10-14	2020-10-28
ZERO	2010-03-01	2020-10-28
FLUFFY	2010-11-18	2020-11-25
EAR	2011-01-01	2020-10-28
SMALL	2011-05-15	2020-10-28

October 29

NICKNAME	IN HERD	PAYMENT
TIGER	2002-01-01	2020-11-25
BOLEK	2002-05-05	2020-11-25
ZOMBIES	2004-03-16	2020-11-25
FAST	2006-07-21	2020-11-25
BALD	2006-08-15	2020-11-25
LITTLE	2006-09-17	2020-11-25
REEF	2006-10-15	2020-11-25
HEN	2008-01-01	2020-11-25
MISS	2008-02-01	2020-11-25
MAN	2008-07-12	2020-11-25
LADY	2008-11-01	2020-11-25
CAKE	2008-12-01	2020-11-25
TUBE	2009-09-01	2020-11-25
LOLA	2009-10-14	2020-11-25
ZERO	2010-03-01	2020-11-25
FLUFFY	2010-11-18	2020-11-25
EAR	2011-01-01	2020-11-25
SMALL	2011-05-15	2020-11-25

Task 10. An attribute named nickname in the Cats table is the primary key of this table. Check if all the nicknames are different. Do the same for the attribute named chief.

The uniqueness of the nickname

```

-----
BALD - unique
BOLEK - unique
CAKE - unique
EAR - unique
FAST - unique
FLUFFY - unique
HEN - unique
LADY - unique
LITTLE - unique
LOLA - unique
MAN - unique
MISS - unique
REEF - unique
SMALL - unique
TIGER - unique
TUBE - unique
ZERO - unique
ZOMBIES - unique

```

The uniqueness of the chief

```

-----
BALD - non-unique
HEN - unique
REEF - non-unique
TIGER - non-unique
ZOMBIES - non-unique

```

Task 11. Find nicknames of cats with at least two enemies.

Nickname	Number of enemies
BOLEK	2
MISS	2
TIGER	2

Task 12. Find the maximum total ratio (total ration = sum of mice ration and mice extra) of mice for all function groups (excluding BOSS function and male cats) that have an average total ration of mice greater than 50.

```
-----
Number of cats= 1 hunts as CATCHER    and eats max.  51.00 mice per month
Number of cats= 2 hunts as CATCHING   and eats max.  65.00 mice per month
Number of cats= 4 hunts as NICE       and eats max.  72.00 mice per month
```

Task 13. Display the minimum ratio of mice for each band by gender.

```
Band No          Gender Minimum ration
-----
3                M          43
4                W          40
4                M          40
1                M          50
2                M          56
1                W          22
2                W          24
3                W          20
```

Task 14. Display information about male cats having in the hierarchy of superiors the male chief with function THUG (also display the data of this supervisor). The data of cats subordinate to a particular chief are to be displayed according to their place in the hierarchy of subordination.

```
Level  Nickname          Function  Band No
-----
          BALD            THUG      2
          CAKE            CATCHING  2
    2    TUBE             CATCHER   2
    1    ZOMBIES          THUG      3
          ZERO            CAT        3
```

Task 15. Present information about the subordination of cats possessing an extra payment (mice_extra) so that the name of the cat standing highest in the hierarchy is displayed with the smallest indentation and the remaining names with the indentation appropriate to the place in the hierarchy.

```
Hierarchy          Nickname of the Chief Function
-----
0                MRUCZEK          Master yourself      BOSS
===>1            BOLEK            TIGER                THUG
===>===>2        BELA              BALD                  NICE
===>1            RUDA              TIGER                NICE
===>1            MICKA             TIGER                NICE
===>1            KOREK             TIGER                THUG
===>===>2        SONIA             ZOMBIES              NICE
```

Task 16. Display the path of all chiefs specified by nicknames, from concrete cat nicknames through all successive superiors to the main chief. Do it for male cats, without mice extra, belonging to a herd of more than eleven years.

In the solution below, the current date is assumed as 06.04.2020.

Path of chiefs

```
BOLEK
  TIGER
CAKE
  BALD
    TIGER
MAN
  REEF
    TIGER
REEF
  TIGER
```