

SET 1 – Introduction to PL/SQL

Exercises / assignments

1. Write an anonymous PL/SQL block which prints the following message to the screen:
My name is <your name here> and my user account is: <your user account here>.

```
old 5: v_name := '&What_is_your_name';  
new 5: v_name := 'Marielle';  
My name is Marielle and my user account is: 872270.  
PL/SQL procedure successfully completed.
```

2. Write an anonymous PL/SQL block to print tomorrow's date to screen in a fancy format.

```
Tomorrow: wednesday 18 april twenty twelve  
PL/SQL procedure successfully completed.
```

3. Write an anonymous PL/SQL block which prints the multiplication table for a given number.

```
old 7: v_to_multiply := &What_number;  
new 7: v_to_multiply := 23;  
With a basic loop:  
1 * 23 = 23  
2 * 23 = 46  
3 * 23 = 69  
4 * 23 = 92  
5 * 23 = 115  
6 * 23 = 138  
7 * 23 = 161  
8 * 23 = 184  
9 * 23 = 207  
10 * 23 = 230  
With a while loop:  
1 * 23 = 23  
2 * 23 = 46  
3 * 23 = 69  
4 * 23 = 92  
5 * 23 = 115  
6 * 23 = 138  
7 * 23 = 161  
8 * 23 = 184  
9 * 23 = 207  
10 * 23 = 230  
With a FOR loop:  
1 * 23 = 23  
2 * 23 = 46  
3 * 23 = 69  
4 * 23 = 92  
5 * 23 = 115  
6 * 23 = 138  
7 * 23 = 161
```

4. In the Fibonacci sequence of numbers, each number is the sum of the previous two numbers, starting with 0 and 1. This sequence begins 0, 1, 1, 2, 3, 5, 8, 13, 21, 34,... Write an anonymous PL/SQL block to print the first 30 numbers of the Fibonacci sequence to screen.

```
0
1
1
2
3
5
8
13
.....
75025
121393
196418
317811
514229
832040
1346269
PL/SQL procedure successfully completed.
```

5. **[optional exercise]**

A Dutch bank account consists of 9 digits e.g.: 1334.36.915

To check whether the bank account is valid we use the so called '11-proef' (11-test).

In this test each digit is multiplied with its place in the row. The result of this multiplication is added up. For the example above:

| Place | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|-------|---|---|---|---|---|---|---|---|---|
| Digit | 1 | 3 | 3 | 4 | 3 | 6 | 9 | 1 | 5 |

$$(1*9)+(3*8)+(3*7)+(4*6)+(3*5)+(6*4)+(9*3)+(1*2)+(5*1) = R$$

This result has to be dividable by 11. That means the remainder of the division must be 0.

E.g.:

$$\text{mod}(R,11)=0$$

or

$$R \bmod 11 = 0$$

If the R is dividable by 11 the bank account number is valid!

Check:

73.61.60.221 (valid)

1334.36.915 (invalid)

Your bank account????