

1. Introduction

The well known database of the university of Somewhere needs some additional features. First of all it is necessary to explain a little bit the system of our university. For every successful finished course, the student has to make an exam and gets his/her percentage. If the course is paid and the percentage is at least 50%, the student is allowed to start with the next course-level.

Levels: B...Beginners; S...Standard; X...Experts

2. Data model

use MyUniV2.sql

3. Print and Set Discounts

Implement a PLSQL-procedure to print and set discounts for successful students.

“successful”: student has reached at least grade 50 for each graduated exam

The procedure gets 2 parameters to determine boundaries:

- sum of costs of all successful and paid exams of a course between *para-1* and *para-2* → 5%
- more than *para-2* → 10%

Developer’s hint:

- efficiency of data access is also of importance
- be aware of correct formatting

Test with boundaries € 20 and € 50:**output:**

```

Ben Bluemchen..... Mathematics..... € 240 => 10%
Ben Bluemchen..... Computer Science.... € 175 => 10%
Scott Smith..... History..... € 95 => 10%
Bibi Block..... Mathematics..... € 75 => 10%
===== 50 ===== boundary-2
Tina Turner..... History..... € 45 => 5%
Ben Bluemchen..... History..... € 45 => 5%
Bibi Block..... History..... € 45 => 5%
Tina Turner..... German..... € 25 => 5%
Ben Bluemchen..... German..... € 25 => 5%
===== 20 ===== boundary - 1

```

table – contents (after call of procedure):

LAST_NAME	FIRST_NAME	COURSE	COURSELEVEL	GRADE	PAID	COSTS	DISCOUNT
1 Block	Bibi	History	B	55 Y		45	5
2 Block	Bibi	History	S	(null) N		50	(null)
3 Block	Bibi	Mathematics	B	75 Y		75	10
4 Block	Bibi	Mathematics	S	65 N		80	(null)
5 Bluemchen	Ben	Computer Science	B	55 Y		175	10
6 Bluemchen	Ben	German	B	65 Y		25	5
7 Bluemchen	Ben	History	S	(null) Y		50	(null)
8 Bluemchen	Ben	History	B	55 Y		45	5
9 Bluemchen	Ben	Mathematics	S	65 Y		80	10
10 Bluemchen	Ben	Mathematics	B	75 Y		75	10
11 Bluemchen	Ben	Mathematics	X	50 Y		85	10
12 Smith	Scott	Computer Science	B	(null) Y		175	(null)
13 Smith	Scott	German	B	45 Y		25	(null)
14 Smith	Scott	History	S	50 Y		50	10
15 Smith	Scott	History	B	50 Y		45	10
16 Smith	Scott	History	X	(null) N		55	(null)
17 Turner	Tina	Computer Science	B	(null) N		175	(null)
18 Turner	Tina	German	S	(null) Y		70	(null)
19 Turner	Tina	German	B	90 Y		25	5
20 Turner	Tina	History	B	84 Y		45	5

Test with € 50 and € 100:**output:**

```

Ben Bluemchen..... Mathematics..... € 240 => 10%
Ben Bluemchen..... Computer Science.... € 175 => 10%
===== 100 =====
Scott Smith..... History..... € 95 => 5%
Bibi Block..... Mathematics..... € 75 => 5%
===== 50 =====

```

table – contents:

LAST_NAME	FIRST_NAME	COURSE	COURSELEVEL	GRADE	PAID	COSTS	DISCOUNT
1 Block	Bibi	History	B	55 Y		45	(null)
2 Block	Bibi	History	S	(null) N		50	(null)
3 Block	Bibi	Mathematics	B	75 Y		75	5
4 Block	Bibi	Mathematics	S	65 N		80	(null)
5 Bluemchen	Ben	Computer Science	B	55 Y		175	10
6 Bluemchen	Ben	German	B	65 Y		25	(null)
7 Bluemchen	Ben	History	S	(null) Y		50	(null)
8 Bluemchen	Ben	History	B	55 Y		45	(null)
9 Bluemchen	Ben	Mathematics	S	65 Y		80	10
10 Bluemchen	Ben	Mathematics	B	75 Y		75	10
11 Bluemchen	Ben	Mathematics	X	50 Y		85	10
12 Smith	Scott	Computer Science	B	(null) Y		175	(null)
13 Smith	Scott	German	B	45 Y		25	(null)
14 Smith	Scott	History	S	50 Y		50	5
15 Smith	Scott	History	B	50 Y		45	5
16 Smith	Scott	History	X	(null) N		55	(null)
17 Turner	Tina	Computer Science	B	(null) N		175	(null)
18 Turner	Tina	German	S	(null) Y		70	(null)
19 Turner	Tina	German	B	90 Y		25	(null)