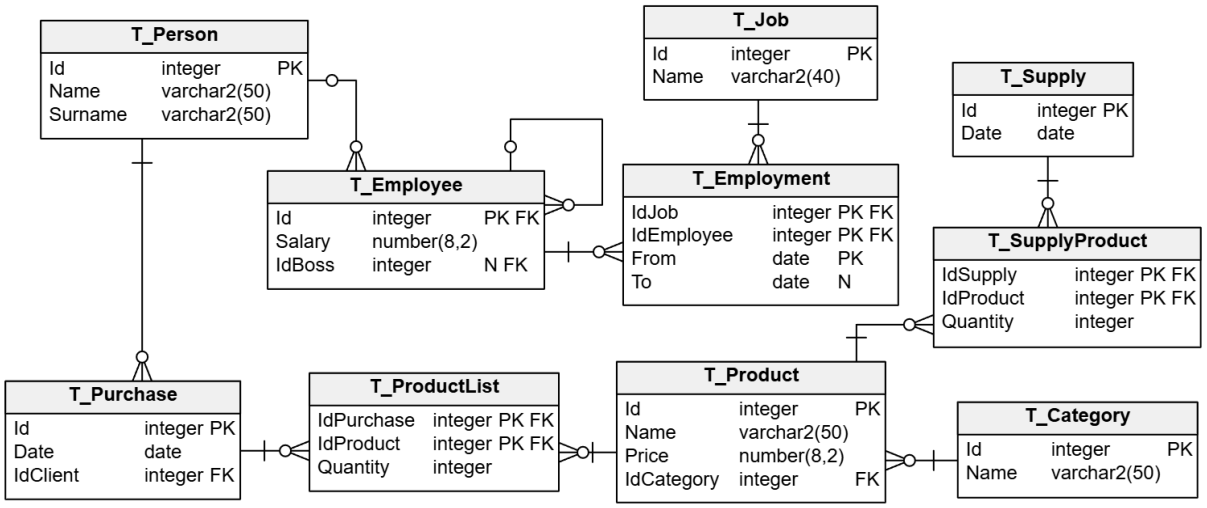
SBD Lab9
PL/SQL Cursors

Link to generate the database: link.
Link to drop the database: link.



Task 1

Using a cursor, go through all products (T_Product table) and modify prices in the following way: products more expensive than $2 should be discounted by 10% and products cheaper than $1 should have their price raised by 5%. For every modified record print: „`Price of {product_name} was changed to: {new_price}$`”. Use *LOOP* and *IF*. Round the price to 2 digits after the decimal point.

Task 2

Rewrite the code from task 1 into a procedure that uses a cursor so that the values for price increase/decrease are not constants but parameters instead. Use *CASE* instead of *IF*.

Task 3

Create a new supply order (table T_Supply) with today's date. Then, using the cursor, assign to this supply order (by creating a record in T_SupplyProduct table) all products that sold more than 10 pieces in December 2022, quantity should be twice the amount sold. After adding each product to the supply order print the information: "*The product with ID = {id} in quantity = {quantity} was ordered*". Do not use IF.

Tip:
First you need to create a new record in the T_Supply table and capture the generated id (PK has the Identity property). Then, using a cursor, you need to create records in T_SupplyProduct table for each product.

Task 4

Add an extra nullable column called "Bonus" with Number(8,2) type to the T_Employee table. Then, using the cursor, assign a bonus value to each currently employed employee. The bonus is calculated based on how many months they had worked, use the following formula: *salary * number_of_months/100*. It is granted only to employees who have worked for at least 6 months and cannot amount to more than 30% of the salary. Create a *View* that stores employee's ID and his/her seniority in months, which will be used by the cursor. After adding the bonus print: "*Employee from id= {id} has been assigned a bonus in the amount of= {bonus} % of salary.*"

For example:
- the bonus for an employee who has worked for 35 months will amount to 30% of the salary
- the bonus for an employee who has worked for 27 months will amount to 27% of the salary
- an employee who has only worked for 3 months will not receive a bonus

Hint:
To calculate the seniority in months, use the months_between() function. Currently employed employees have at least one NULL in the "To" column in the T_Employment table. To determine how long the given employee had been employed you should consider the earliest *"From"* date in T_Employment table, taking into account all of his jobs and subtract it from today's date (current_date).

Creating Bonus column:

```
ALTER TABLE T_Employee
ADD Bonus Number(8,2) NULL;
```

Task 5

Add an extra nullable column called "Favorite_product" with integer type to the T_Person table. Then, using the cursor, assign the ID of a product given person bought in the greatest quantity in all his purchases as his favorite product. After adding the product, write the information: *"Favorite product with id= {id} has been assigned to a person with id= {id}."*

Creating *"FavouriteProduct"* column:

```
ALTER TABLE T_Person
ADD Favourite_product integer null;

ALTER TABLE T_Person
ADD CONSTRAINT FK_Person_Product FOREIGN KEY (Favourite_product)
REFERENCES T_Product (Id);
```

After assigning favourite product following query should return results showed below:

```
SELECT pe.surname, pr.name AS "favourite product"
FROM T_Person pe LEFT JOIN T_Product pr ON pe.favourite_product = pr.id;
```

	NAZWISKO	ulubiony produkt
1	Clearchus	cod
2	Prepelaus	herring
3	Phrynichus	kiwi
4	Charitimides	kiwi
5	Ephialtes	mango
6	Prothytes	mango
7	Letodorus	grapefruit
8	Sitalces	grapefruit
9	Cheirisophus	pumpkin
10	Theramenes	<null>