

EDABA Task 3

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Triggers

Trigger #1. UPDATE

When lease contract price increases by more than 1000, earnings of the employee (that take part in this contract) are increased by trigger by 20.

Trigger:

```
CREATE OR REPLACE TRIGGER higher_earnings_after_contract_price_increase
AFTER UPDATE ON lease_contracts
FOR EACH ROW
WHEN (NEW.price >= OLD.price + 1000)
BEGIN
    UPDATE employees
    SET earnings_per_hour = (SELECT earnings_per_hour + 20 FROM employees
WHERE id = :NEW.employee)
    WHERE id = :NEW.employee;
END;
```

Price of the contract with id = 1 and earnings per hour of employee that take part in it BEFORE update:

ID	PRICE	EMPLOYEE	EARNINGS_PER_HOUR
1	64969	29	67

Increase the price of the contract by 9999:

```
UPDATE lease_contracts
SET price = (SELECT price + 9999 FROM lease_contracts WHERE id = 1)
WHERE id = 1;
```

Price of the contract with id = 1 and earnings per hour of employee that take part in it AFTER update:

ID	PRICE	EMPLOYEE	EARNINGS_PER_HOUR
1	74968	29	87

Trigger #2. DELETE

When lease contract is going to be deleted, all associated with it opinions are deleted too.

Trigger:

```
CREATE OR REPLACE TRIGGER delete_contract_opinions
BEFORE DELETE ON lease_contracts
FOR EACH ROW
BEGIN
    DELETE FROM contract_opinions WHERE contract = :OLD.id;
END;
```

Opinions for contract with id = 4 BEFORE delete:

CONTRACT	MARK	REVIEWER	COMMENTS
4	1	2	CfhHKJEnhIAwzQtwsfGB1rwnxpHZPVDk

Delete contract with id = 4:

```
DELETE FROM lease_contracts
WHERE id = 4;
```

Opinions for contract with id = 4 AFTER delete:

CONTR...	MARK	REVIE...	COMM...
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Trigger #3. INSERT

When new employee is added, equipment (if there is piece not used at the moment) is being rented for him automatically.

Trigger:

```
CREATE OR REPLACE TRIGGER give_new_employee_equipment
AFTER INSERT ON employees
FOR EACH ROW
BEGIN
    INSERT INTO equipment_rental VALUES(
        (SELECT id + 1 FROM equipment_rental ORDER BY id DESC FETCH FIRST 1
        ROWS ONLY),
        :NEW.date_begin,
        :NEW.date_begin + 365,
        NULL,
        (SELECT id
        FROM equipment
        WHERE id NOT IN (
            SELECT UNIQUE equipment
            FROM equipment_rental
            WHERE date_of_actual_return IS NOT NULL
            AND date_of_actual_return < :NEW.date_begin)
        ORDER BY id DESC
        FETCH FIRST 1 ROWS ONLY),
        :NEW.id
    );
END;
```

Newest equipment rentals (id DESC) BEFORE insert:

ID	EQUIPMENT	EMPLOYEES	DATE_BEGIN	DATE_END	DATE_OF_ACTUAL_RETURN
60	24	27 19-FEB-10	23-FEB-18	27-SEP-15	
59	34	22 07-MAR-11	17-MAY-18	17-JUL-19	
58	20	39 12-NOV-11	01-MAY-20	26-AUG-16	
57	32	20 07-MAY-12	31-MAR-17	15-APR-16	
56	50	19 13-SEP-13	16-AUG-19	17-JAN-21	
55	30	37 16-APR-15	29-NOV-21	16-MAY-13	
54	42	37 24-JUN-12	19-MAY-21	16-FEB-13	

Insert new employee into employees:

```
INSERT INTO employees VALUES (
  (SELECT id + 1 FROM employees ORDER BY id DESC FETCH FIRST 1 ROWS
ONLY),
  'Jakub',
  'Tomkiewicz',
  123456,
  '654321',
  'testemail@email.com',
  198765,
  'Street',
  '150B',
  'Warsaw',
  'Poland',
  '01-234',
  100,
  10,
  TO_DATE('2021/11/11', 'yyyy/mm/dd'),
  0
);
```

Newest equipment rentals (id DESC) AFTER insert:

ID	EQUIPMENT	EMPLOYEES	DATE_BEGIN	DATE_END	DATE_OF_ACTUAL_RETURN
61	65	56 11-NOV-21	11-NOV-22	(null)	
60	24	27 19-FEB-10	23-FEB-18	27-SEP-15	
59	34	22 07-MAR-11	17-MAY-18	17-JUL-19	
58	20	39 12-NOV-11	01-MAY-20	26-AUG-16	