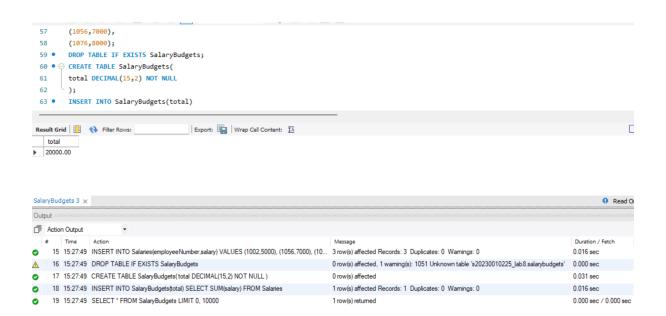
# S20230010225\_LAB8

## DBMS LAB 8 screenshots and code

#### Table creation for exercise



#### Q1

```
68
         delimiter //
 69
  70 • create trigger before_insert_update
        before insert on WorkCenters
 71
        for each row
 73 ⊖ begin
 74
             update WorkCenterStats
             set totalCapacity = totalCapacity + new.capacity;
  75
        end //
 76
         delimiter;
  77
  78
  79
Output :
Action Output
    1 15:33:40 create trigger before_insert_update before insert on WorkCenters for each row begin upd... 0 row(s) affected
```

```
82 • create trigger insert_reminder
 83
         after insert on members
  84
         for each row
  85

    ⇒ begin

  86
              if new.birthDate is null then
  87
                  insert into reminders (memberId, message)
  88
                  values (new.id, 'Update birthday info');
  89
              END IF;
        END //
  90
  91
         DELIMITER;
  92
  93
Output :
Action Output
 # Time
               Action
                                                                                        Message
1 15:33:40 create trigger before_insert_update before insert on WorkCenters for each row begin upd... 0 row(s) affected
2 15:35:17 create trigger insert_reminder after insert on members for each row begin if new birthDate ... 0 row(s) affected
```

# Q3

```
93
         delimiter //
 94 • create trigger insert_into_salarchieve
         before delete on Salaries
 95
 96
         for each row
 97

    begin

             insert into SalaryArchives (employeeNumber, validFrom, amount, deletedAt)
 98
 99
             values (old.employeeNumber, old.employeeNumber());
100
       end //
         delimiter;
101
103
Action Output
      Time
               Action
                                                                                      Message
   1 15:47:06 create trigger insert_into_salarchieve before delete on Salaries for each row begin insert i... 0 row(s) affected
```

## Q4

```
105 •
         create trigger update_salbudget
          after delete on Salaries
107
          for each row
108 ⊝ begin
              update SalaryBudgets
110
             set total = total - old.salary;
111
         end //
112
          delimiter;
113
114
115
116
Action Output
2 15:35:17 create trigger insert_reminder after insert on members for each row begin if new birthDat... 0 row(s) affected
   3 15:37:43 create trigger insert_into_salary_archives_before_delete before delete on Salaries for eac... Error Code: 1054. Unknown column 'validFrom' in 'OLD'
4 15:38:48 create trigger insert_into_salary_archives_before_delete before delete on Salaries for eac... Error Code: 1054. Unknown column 'validFrom' in 'OLD'
    5 15:42:11 create trigger insert_into_salary_archives_before_delete before delete on Salaries for eac... 0 row(s) affected
6 15:45:06 create trigger update_salbudget after delete on Salaries for each row begin update Sal... 0 row(s) affected
```

```
Code: -- CREATE TABLE WorkCenters (
-- id INT AUTO_INCREMENT PRIMARY KEY,
-- name VARCHAR(100) NOT NULL,
-- capacity INT NOT NULL
-- );
-- DROP TABLE IF EXISTS WorkCenterStats;
-- CREATE TABLE WorkCenterStats(
-- totalCapacity INT NOT NULL
-- );
-- DROP TABLE IF EXISTS members;
-- CREATE TABLE members (
-- id INT AUTO_INCREMENT,
-- name VARCHAR(100) NOT NULL,
```

-- email VARCHAR(255),

```
-- birthDate DATE,
-- PRIMARY KEY (id)
--);
-- DROP TABLE IF EXISTS reminders;
-- CREATE TABLE reminders (
-- id INT AUTO_INCREMENT,
-- memberld INT,
-- message VARCHAR(255) NOT NULL,
-- PRIMARY KEY (id, memberld)
--);
-- DROP TABLE IF EXISTS Salaries;
-- CREATE TABLE Salaries (
-- employeeNumber INT PRIMARY KEY,
-- validFrom DATE NOT NULL,
-- amount DEC(12, 2) NOT NULL DEFAULT 0
--);
-- INSERT INTO
-- salaries(employeeNumber, validFrom, amount) VALUES
-- (1002,'2000-01-01',50000),
-- (1056,'2000-01-01',60000),
-- (1076,'2000-01-01',70000);
-- DROP TABLE IF EXISTS SalaryArchives;
-- CREATE TABLE SalaryArchives (
-- id INT AUTO_INCREMENT,
-- employeeNumber INT,
-- validFrom DATE NOT NULL,
```

```
-- amount DEC(12, 2) NOT NULL DEFAULT 0,
-- deletedAt TIMESTAMP DEFAULT NOW(),
-- PRIMARY KEY (id, employeeNumber)
--);
-- DROP TABLE IF EXISTS Salaries;
-- CREATE TABLE Salaries (
-- employeeNumber INT PRIMARY KEY,
-- salary DECIMAL(10,2) NOT NULL DEFAULT 0
--);
-- INSERT INTO
-- Salaries(employeeNumber, salary) VALUES
-- (1002,5000),
-- (1056,7000),
-- (1076,8000);
-- DROP TABLE IF EXISTS SalaryBudgets;
-- CREATE TABLE SalaryBudgets(
-- total DECIMAL(15,2) NOT NULL
--);
-- INSERT INTO SalaryBudgets(total)
-- SELECT SUM(salary)
-- FROM Salaries;
-- SELECT * FROM SalaryBudgets;
-- delimiter //
-- create trigger before_insert_update
```

before insert on WorkCenters
for each row
begin
update WorkCenterStats
set totalCapacity = totalCapacity + new.capacity;
end //
delimiter ;
DELIMITER //
create trigger insert_reminder
after insert on members
for each row
begin
if new.birthDate is null then
insert into reminders (memberld, message)
values (new.id, 'Update birthday info');
END IF;
END //
DELIMITER;
delimiter //
create trigger insert_into_salarchieve
before delete on Salaries
for each row
begin
insert into SalaryArchives (employeeNumber, validFrom, amount, deletedAt)

	values (old.employeeNumber, old.employeeNumber());
e	end //
d	lelimiter;
C	DELIMITER //
C	reate trigger update_salbudget
a	fter delete on Salaries
f	or each row
b	pegin
	update SalaryBudgets
	set total = total - old.salary;
end //	
d	lelimiter;