

Database Systems I 2020/2021, Test 2 (SQL DDL/DML), Variant: A

Duration: 70min

Maximal number of points/minimal number of points: 20/10

Tasks

1. Create table `Language` with attributes `lID` (automatically generated primary key) and `name` (text string, max. 30 characters). (3 points)
2. Insert all languages stored in the table `Person` into the table `Language`. Solve the task with a single `INSERT SELECT` statement. (4 points)
3. Add the attribute `lID` into the table `Person` as a foreign key to the table `Language`. The attribute will be nullable. Set the value of `lID` according to `mother_language`. (6 points)
4. Remove the attribute `mother_language` from the table `Person`. (3 points)
5. Add the attribute `solved` of type `BIT` to the table `Device_event`. Attribute will be required, its default value will be 0. (4 points)

Database Systems I 2020/2021, Test 2 (SQL DDL/DML), Variant: B

Duration: 70min

Maximal number of points/minimal number of points: 20/10

Tasks

1. Create table `Statistics` with attributes `person_id` (integer) and `events_count` (integer). The attribute `events_count` can have only positive values. Consequently, insert all persons from the database and the number of events processed by them into this table. Solve the task with a single `INSERT SELECT` statement. (8 points)
2. Delete all devices without sensors (attribute `has_sensor` = 0) from the table `Device`, including all records associated with these devices. (3 points)
3. Set the attribute `startDate` in the table `Device_event` to be required. Set the value of this attribute to the actual date (use the function `GetDate()` to obtain actual date). (4 points)
4. The attribute `boss_id` is set to `NULL` in the case of boss employees. Promote to boss those employees who reported at least five events in the last three years. (5 points)