CFG - INTRODUCTION TO DATABASES & SQL PROGRAMMING LANGUAGE w22snwds - Katarina Miksche - final project

University System

Tables

Students

Lectors

Courses

Teaching

Studying

Exams

Exams records

To-Do

Views

Geographical overview

Success of students

Success of courses

Success of lectors

Scores of exams

Students requiring additional support

Student's view

Lector's view

Detail Exam Records

Functions

Studying status Student course score Table size

Triggers, Procedures, Events

Generate student's number
Opening of student's record
Closure of student's record
Population of To-Do list
University report
Control of integrity of exams assigned to course
Monthly check for Student Department

Tables

Students

 ID (primary key), name, surname, address, city, email, phone, start date, end date

Lectors

- ID (primary key), name, surname, email, phone

Courses

- ID (primary key), name, pass mark

Teaching

- Lector ID (foreign key), Course ID (foreign key), start date, end date

Studying

- Student ID (foreign key), Course ID (foreign key), start date, end date

Exams

 Exam ID (primary key), Course ID (foreign key), type of exam (list), weight, resubmission option (true/false)

Exams records

- Exam ID (foreign key), Student ID (foreign key), score, exam date

To-Do

- Task, date, status (true=active task / false=finished task)

Views

Geographical overview

 City, amount of students, % of overall students, average Student course score, average Studying status

Success of students

- Student full name, average Student course score, average Studying status

Success of courses

 Course name, lector, amount of students, start date, end date, average Student course score, average Studying status

Success of lectors

 Lector, amount of courses, amount of students, average Student course score, average Studying status

Scores of exams

 Exam, type, course ID, name of course, average score, amount of students to pass, amount of students completed, percentage of resubmissions, lector

Students requiring additional support

 Student full name, Course, Student course score, Pass, Studying status, Course status, Lector

Student's view

- Course, pass mark, Student course score, Studying status, deadline (course end date), lector's full name, lector's email

Lector's view

Student full name, course, Student course score, Studying status, student's email

Detail exam records

Exam ID, Score, Date, Type, Weight, Student ID, Student's name, Course ID,
 Course name, Lector ID, Lector's name

Functions

Studying status

- % of course completion based on amount of student's sat exams

Student course score

- Weighted means of student's exam results

Table size

- Count of rows in table

Triggers, Procedures, Events

Generate student's number

- Trigger to generate and input unique student ID

Closure of student's record

- Trigger to close student's record for course if he/she passed all exams and gained Student course score above Pass mark
- Trigger to close whole student's record if all courses finished

Population of To-Do list

- Trigger to create task in Student Department's To-Do list to contact student after failed exam if there is possibility for resubmission

Control of integrity of exams assigned to course

Procedure to check if data input on weight of exams per course equal 100% with variable of course ID or option to see 'all' and triggers on exams insert/update/delete inputting tasks to TO-DO list

University report

 Procedure generating report on the uni status: Amount of students, amount of active students, amount of lectors, amount of courses, average Student course score, average Student course score of active students, average Studying status of active students, average score of exam by types, percentage of repeated exams

Monthly check for Student Department

- Scheduled event generating reminder for use of function to check on records of exams integrity, current status of To-Do list, Students requiring support and University report