Course: Introduction to Programming Using Python

Module 18. Using Databases. Part 2

Task 1

Create an interactive interface for the Academy databases developed within the Database Theory course. This interface should allow the user to:

- Insert rows into database tables;
- Update rows in the database tables;
- Delete rows from the database tables;
- Create reports:
  - Print information about all study groups;
  - Print information about all teachers;
  - Print full names of the teachers who give lectures to a specific group;
  - Print department names and group names that belong to them;
  - Print the department with the largest number of groups;
  - Print the department with the smallest number of groups;
  - Print names of academic disciplines taught by a specific teacher;
  - Print departments to which a specific discipline belongs;
  - Print group names that belong to a specific sub-department;
  - Print names of the disciplines and full names of the teachers who give the largest number of lectures;
  - Print the name of a discipline with the least number of lectures.

- Provide the ability to print the result of the report or save it to a file (the user chooses the desired option in the app settings).
- Provide the ability to enter the app with different access rights. For example, read-only, read and write, read specific tables only.