

In the first project assignment, you will be required to design the database together with the Data Definition Language (DDL) scripts to create that database. This project assignment will be performed in **pairs of students**. Each student has to contribute to the solution, otherwise, the other student can report the inactivity of his colleague, and then the colleague will be marked with 0 points from the assignment. The teams can be grouped arbitrarily (it is not essential to have team member from the same seminar group).

The assignment has no exact description, however, you need to meet the given requirements:

- Create a GitLab/GitHub project repository and upload the database design together with all other files required below. Include a suitable README.md file.
- The database must have at least 12 tables
- The database must have a one-to-one relationship
- The database must have a one-to-many relationship
- The database must have a many-to-many relationship
- The database must be at least in 3rd normal form
- For each table insert at least five records (for at least two tables insert more than 50 records)
- Optional task: Integration of Flyway or Liquibase for the database versioning (create at least two versions of your database, e.g., the additional version will contain, e.g., any ALTER TABLE command)
- Database tables and columns must be named with English terms

Together with these requirements, you have to provide a document with attachments that will contain the following:

- Link to your GitLab/GitHub repository (each student will create one repository – the team members will have to duplicate the repository) – Consider repository name as **bds-db-design**
- Picture representing the database design (e.g., Entity Relationship Diagram (ERD) with Crow's Foot Notation¹)
- Application description (What type of application does your database represent? For example, a database for incident handling). Describe the use-case that you are trying to deal with.

– At least 1/2 of A4 paper

- Description of each table – the purpose, and one short descriptive sentence for each table column plus explanation why you choose a particular data type
- Description why do you think that your database is in 3rd normal form?
- The DDL scripts to create a database for PostgreSQL database
- The DDL scripts to create a database for a different relation database of your choice (here, you need to modify your previously created DDL scripts to meet the requirements of another database)
- The evidence that you created a database (with all the tables) in PostgreSQL (e.g., screenshots from the pgAdmin)

¹Crow's Foot Notation description: <https://support.microsoft.com/en-us/office/create-a-diagram-with-crow-s-foot-database-notation-1ec22af9-3bd3-4354-b2b5-ed5752af6769>

- Optional task: Instructions on how to run the Flyway/Liquibase commands and what updates it performed

Please upload the document with attachments in a single **.zip** file named `UCO_YOUR-NAME_project-assignment-1.zip`

The **.zip** will be uploaded to the course e-learning system.

This project assignment is for 6 points.

- **Target date: 2th of November (inclusive)**
- 3 for satisfying all the requirements (if any is not met, the number of points is set to 0)
- 0-3 based on the quality of a solution