

## ASSIGNMENT

---

### Grouping

- Each group must have a minimum of 3 students.

### Task

- Choose one of following topics for a database application (see the attached list).
- Design and implement the database to store data for this application. You need to:
  1. Write the user requirement (summarizes the selected design requirements, and may remove some non-critical details).
  2. Design E/R diagram.
  3. Convert E/R diagram to relational data model. Normalize this to 3NF/BCNF.
  4. Define all necessary constraints.
  5. Implement this design into SQL Server.
  6. Insert data into the database. Write all the SQL statements, functions, stored procedures, and triggers to perform all the necessary transactions of the application.

### Documents

Document	Content	File name	Deadline
<b>.DOCX file</b>	<b>Introduction to the problem</b> (write the user requirement) <ul style="list-style-type: none"><li>- Describe the problem</li><li>- Management goals</li></ul> <b>Entity Relationship Model</b> (E/R model) <ul style="list-style-type: none"><li>- Identify entity sets, attributes</li><li>- Make E/R diagram</li></ul> <b>Data Requirements Specification</b> (data dictionary) <ul style="list-style-type: none"><li>- Relational model (converted from E/R model)</li><li>- Data dictionary (define all tables with relevant constraints)</li></ul>	DBI202_Class_Name OfGroup.docx	See it on LMS
<b>.SQL file</b>	<b>Implement design into MS SQL Server</b> <ul style="list-style-type: none"><li>- Create database, tables and constraints</li><li>- Insert data into the database</li></ul>	DBI202_Class_Name OfGroup.sql	

	- Execute SQL queries, triggers (to set up complex constraints), functions and procedures (to solve business)	
<a href="#">.PPTX</a> file	<b>Group presentation slides</b> <ul style="list-style-type: none"> <li>- List and tasks of team members</li> <li>- Design requirements and results of completing the selected topic</li> </ul>	DBI202_Class_Name OfGroup.pptx