

Basi di Dati - 2018

Assignment 1 (Phase 1)

Preliminaries

The assignment consists of 2 phases: one major and one minor. This is the major phase. Read everything carefully. Make sure that the names of the files are exactly as described here. The files will be processed by a software and any misspellings or variations that you make will make the software to give you zero marks. The goal of this phase is to teach you to design the semantic models of a database from a set of specifications. The minor phase will teach you to evaluate databases that are already designed by others.

The assignment may be done individually or in groups of 3 persons.

Deadline

This phase has a strict deadline the **Wednesday 10 October 2017 at 23:59**. Any assignment delivered after that time will not be considered. (Since the output of the next phases will be based on the results of this phase, no assignment can be accepted after this deadline).

Task Description & Marking

You have received a letter from the president of the European Commission. You can see the letter in the next page. This is real. You can check that it is indeed from the president and it is not a joke, by checking if the signature at the end of the letter is real by comparing it with the signature in the Jean Claude Juncker's Wikipedia page (https://en.wikipedia.org/wiki/Jean-Claude_Juncker). He is asking you for the creation of an ER diagram. Please design the diagram and deliver it as described below. The assignment will be losing marks for every requirement described in the specification that is not reflected in the ER Diagram. Assumptions about the data that are not explicitly said in the specification cannot be made.

Delivery

ONLY ONE member from each group needs to deliver. If two assignments are found to be identical (e.g. because both members of the group delivered) the same assignment, our automatic software will detect it, consider it as cheating and set both marks to 0.

1. Create your ER diagram using some computer tool (PowerPoint, yEd, lucichart, ...) or anything else you like. No handwritten assignments are accepted. **Make sure that the notation you use is the one that was used in the class and the textbook. Different notation will not be considered and will only result in lost of points.**
2. Save your ER diagram in a pdf file. Make sure that all your ER diagram fits in **one** page (the pdf has to have only one page). **DO NOT PUT YOUR MATRICOLA, YOUR EMAIL, YOUR NAME or any other identification information inside the pdf.** If your pdf contains inside any information that can identify you (e.g., your name, email, matricola, etc.,) it will automatically get 0 marks.
3. The name of the pdf file should be "ER" followed by the matricola of the members of the group separated by the "_" symbol. For example, if the group consists of two persons with matricola 12345 and 98765, then the file should have the name **ER_12345_98765.pdf**.
4. To deliver, click OPEN on the assignment as you see it on the Stream of the google classroom. Click ADD and from the pull-down menu select FILE. Drag your pdf file on the space that opens (Or click SELECT FILE to select the file from the disk) and click UPLOAD. Once you are ready to submit click TURN IN. In case you find a mistake in your assignment before the deadline, you can take it back by clicking UNSUBMIT, correct it, and then submit it again.

Jean-Claude Juncker
President of the European Commission
European Commission
Rue de la Loi / Wetstraat 200
1049 Brussels

Dear UNITN student,

As the president of the European Commission I am responsible in modernizing the governance of this amazing block called European Union. One of the main efforts we do, is to try to ensure that our benefits are protected in the world. For this reason, we have established a new office that employs a number of negotiators that work for us, ensuring the best possible results. The office needs to have a database that keeps track of the negotiators and their assignments. I would like to personally ask you to design an ER diagram for the database we need to create to store that information. In particular, here are the requirements:

1. The database contains information about negotiators. For each negotiator, it contains the negotiator id that uniquely identifies a negotiator, the telephone number and the email that can be used to contact them.
2. Each negotiator works for a specific government.
3. The government for which a negotiator works, pay the negotiator a salary for his/her services.
4. Negotiators participate in negotiation meetings. A negotiation meeting is a meeting of a number of negotiators that get together to negotiate about an issue. No negotiation meeting can be done without negotiators.
5. The negotiators get a bonus when they participate in a negotiation meeting (that is extra money that has nothing to do with the salary they take from the government for which they work). That compensation is different for each negotiation meeting hat a negotiator participates.
6. A negotiator participates in a negotiation, must pay a fee. That fee is fixed for each different negotiation meeting and is the same for every negotiator that participates in the negotiation meeting.
7. A negotiation meeting may be part of a number of campaigns (or not be part of any campaign). The role of the campaign is to get an agreement; thus, a campaign consists of a set of negotiations. Clearly, a campaign makes no sense without negotiations. Every negotiation in a campaign has a coordinator, apart from the first one, because in that meeting the negotiators meet only to get to know each other and not to actually solve any issue, thus, there is no need to have any coordinator.
8. When a negotiator participates in a negotiation meeting he or she can come alone or bring with him/her a team of exactly 4 consultants. One of them has to be a business expert with an MBA, one has to be a technology expert with a PhD, and the remaining two have to be investors.
9. The consultants can be independent or may come from consultancy groups. A consultancy group is a group of consultants.
10. The consultancy groups establish contracts with governments. Such contracts have one-year duration; thus, it is important to know the year of each contract. When a consultancy group establishes a contract with a specific government for a specific year, a director is appointed to ensure that the consultancy group operates within the limits of the law.
11. Sometimes, at the end of a negotiation a legislation proposal is produced.
12. The legislation proposal contains sections. Each section may contain smaller subsections, that may also in turn contain subsections.

Sincerely

A handwritten signature in black ink, appearing to be 'J-C Juncker', with a long horizontal line extending to the right.

Jean-Claude Juncker