INFO0009-2
Bases de données
(organisation générale)

Presenting the Project's First Part

Advanced Organizer

Item	**Time allotted**
Organization	05:00
A brief description of the project	05:00
The evaluation grid (revisited)	05:00
Upcoming self-assessment exercise	15:00
Q&A	05:00

Project Part 1 -- Organization

In **teams of 3 students**, you will:

- Create an entity-relationship model, convert that model into the relational model, and analyze whether the resulting relational model is normalized.
- You will submit a **technical report (in PDF)** on eCampus. Ensure that the diagrams are **vector-based**!
- **Deadline: 2023-03-24 @ 23:59**.

You will create teams of 3 students on eCampus. It is up to you to find peers. You may use the discussion board or the course's MS Teams space to find peers.

I have provided a document showing how you can choose a group and submit a deliverable as a group on eCampus. **Start forming groups ASAP! :-)**

The project is a mandatory learning activity. No submitting something for either part for the project results in an A for the whole course. Empty files, source code with only names, etc. are not considered as a submission and will yield an A as well.

Project Part 1 -- The Project

WeND(Y)'s Party Management System

I am the owner of a small party and event planning business. My target market consists of (geriatric) millennials with a taste for questionable music and obscure CDs. My company is called "WeND(Y)," which stands for "We're not dead (yet)."

My main business is to assign DJs and event planners to a party or event. I have a lot of repeat customers, and my client base is growing. **I now need a party management system to keep track of events, DJs, event planners, etc., and our various customers and their events.**

UoD: DJs, Customers, Songs, CDs, Playlists, Events, …

Compte tenu de la présence d'étudiants dans des programmes internationaux, la description du projet est en anglais. Cependant, je peux vous fournir une version traduite sur demande si vous avez besoin d'une traduction en français.

INFO0009-2 Bases de données 2022-2023

Project Part 1

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My main business is to assign DJs and event planners to a party or event. I have a lot of repeat customers, and my client base is growing. I now need a party management system to keep track of events, DJs, event planners, etc., and our various customers and their events. Indeed, scheduling everything on paper led to some unfortunate events, such as a DJ being booked for two parties happening on the same day! I have hired you, a team of three computer scientists, to develop such a system.[1]

The system needs to store information about my employees. These include their employer ID and first- and last name. Some of my employees are better known by their pseudonyms. Brian Firkus is better known as Trixie Mattel, for instance. Paris Hilton does not go by a pseudonym. Every employee in the company has a specific role at WeND(Y).

Managers deal with clients. Managers are responsible for managing the client base and the organization of events. We keep track of clients by assigning them a client number, a first- and last name, a phone number (mandatory), and a unique email address that is not mandatory. At WeND(Y), we do not make the distinction between a party and an event. Managers discuss the type of party (Birthday, Marriage, Divorce, …) and the theme (Tropical, Vampires, Mean Girls, Lord of the Rings, …), and they note the name, description, and date of the event. The description isn't mandatory.

Once the manager has the information, the manager enters the information into the system and assigns an event planner and a DJ. A manager can only assign employees that they supervise. The system should keep track of the manager creating the event.

The event planner reaches out to the client to discuss logistics. One of the important aspects is the location. Events are held either in a public venue or a private residency. The event manager visits various locations and decides, together with the client, where the event will take place. All locations have a unique ID, address (which is composed of street, city, postal code, and country), and a comment. Comments are not mandatory. We keep track of the rental fee of public venues, which depends partly on the event. To facilitate the work of the event planner, we keep track of the relationship between public venues and themes, as some venues are more suitable for specific themes than others. Next to the location, event managers take care of requests. The event and a name identify each request. For each request, we keep track of their description and price. For instance: for Daria Morgendorffer's birthday, a client requested "green balloons," and the event planner obtained a quote from Party Balloon for 500 EUR.

The DJ reaches out to discuss the music. We have curated a large collection of playlists ready to be reused for an event. Each playlist contains multiple songs, and the same song can appear on several playlists. For each playlist, we store a unique name. Examples of unique names include "Yet Another Basic Birthday Party" and "On Wednesdays We Wear Pink." The playlists we have curated are linked to one or more themes. This relationship allows a DJ to propose some existing playlists to the customer quickly.

Playlists contain songs, and we classify each song by genre (pop, techno, grunge, etc.). We also keep track of genre hierarchies. For instance, "bubblegum" is a subgenre of "pop." A genre can be a specialization of two genres, e.g., "punk pop" combines elements from "punk" and "pop." Not all genres must have a parent.

We propose existing playlists, but customers can request their playlists. The request for a custom playlist costs extra. If the new playlist is interesting, we can indicate those playlists as "reusable" by linking them to one or more themes.

Event planners are an expert in at most two themes, and DJs are specialized in at least one and at most three genres. If a DJ is an expert in a genre with specializations, then these are included as well. In an ideal world, we guarantee the right people for the right job. However, a project manager uses that information as a guide and may assign an event manager without expertise in a particular theme or assign a DJ to play songs outside their specialty.

For each song, we keep track of its title, duration, and artists. For artists, we do not make a distinction between bands and people. A song also appears on a CD as a track with a track number. Songs are identified by their CD and track number. As for the CD, we keep track of the CD number, title, year, and producers. We pride ourselves in playing music from CDs and have a massive CD library. We

[1] You will be paid in grades, depending on the quality of your work. ;-)

Project Part 1 -- Evaluation Grid

Aspect	**Weight**	**Score out of 5:**	**Feedback**
Entity-relationship model	8		
Description of domains	1		
Description of non-visible integrity constraints	2		
Keys	1		
Reduction to the relational model	6		
Analysis of normal forms	2		
	Grade:	**Weighted average times 4 to get a score using base 20.**	

Scores:
0) Non-existent
1) Insufficient
2) Less than adequate
3) Adequate
4) Good
5) Excellent
6) Exceeds expectations

Scores are coarse-grained.
Motivation: there is no point in being too nuanced when those nuances are "lost" in the overall grade.

"Exceeds expectations" **is rarely given** but given to those students going above and beyond in the course.

(Student recognition)

Project Part 1 -- Integration of Knowledge and Skills I

Aspect	Weight	Score out of 5:	Feedback
Entity-relationship model	8		
Description of domains	1		
Description of non-visible integrity constraints	2		
Keys	1		
Reduction to the relational model			
Analysis of normal forms	2		
	Grade:		

Chapter 01: Introduction and Entity-Relationship Model

TP 01: Le modèle entité-relation

Scores:
0) Non-existent
1) Insufficient
2) Less than adequate
3) Adequate
4) Good
5) Excellent
6) Exceeds expectations

Scores are co
Motivation: t
being too nuanced when those nuances are "lost" in the overall grade.

students going above and beyond in the course.

(Student recognition)

Project Part 1 -- Integration of Knowledge and Skills II

Aspect	Weight	Score out of 5:	Feedback
Entity-relationship model	8		
Description of domains	1		
Description of non-visible integrity constraints	2		
Keys	1		
Reduction to the relational model	6		
Analysis of normal forms	2		
	Grade:		

Chapter 02: The relational model and relational algebra

TP 02: Vers le modèle relationnel

Scores:
0) Non-existent
1) Insufficient
2) Less than adequate
3) Adequate
4) Good
5) Excellent
6) Exceeds expectations

Scores are co
Motivation: t
being too nuanced when those nuances are "lost" in the overall grade.

students going above and beyond in the course.

(Student recognition)

Project Part 1 -- Integration of Knowledge and Skills III

Aspect	Weight	Score out of 5:	Feedback
Entity-relationship model	8		
Description of domains	1		
Description of non-visible integrity constraints	2		
Keys	1		
Reduction to the relational model	6		
Analysis of normal forms	2		
	Grade:		

Chapter 03: The theory of functional dependencies and normalization

TP 03: L'algèbre relationnelle et les dépendances fonctionnelles

TP 04: La théorie des dépendances, normalisation, décomposition

Scores:
0) Non-existent
1) Insufficient
2) Less than adequate
3) Adequate
4) Good
5) Excellent
6) Exceeds expectations

Scores are co
Motivation: t
being too nuanced when those nuances are "lost" in the overall grade.

students going above and beyond in the course.

(Student recognition)

Upcoming Self-assessment Exercise I

> *"The primary purposes of engaging students in careful self-assessment are to boost learning and achievement, and to promote academic self-regulation, or the tendency to monitor and manage one's own learning."* (Pintrich, 2000; Zimmerman & Schunk, 2004 as cited by Andrade & Valtcheva, 2009)

The ability to adequately assess one's work is not only an important skill in one's learning, it is also a very useful skill in industry; how well are you aware how good/bad your work is! ;-)

Andrade, H. & Valtcheva, A. (2009) *Promoting Learning and Achievement Through Self-Assessment*. Theory Into Practice, 48(1), pp. 12-19.

Upcoming Self-assessment Exercise II

How? On the 27th of March, you will conduct the self-assessment exercise in teams (the project teams), which takes about 1 hour.

- 45 minutes will be spent on the self-assessment **exercise as a team**
  - You will fill in the evaluation grid that I have shared with you.
  - You will determine what the scores mean.
  - You will assign a score and *justify* each score for each aspect.
- 10 minutes will be spent on **individual surveys**
  - One on the exercise and one on the team dynamics

Why?

- Not only a valuable learning experience for you.
- I will measure the impact of formative evaluations with a self-assessment component within and across my courses.
- *What's in it for you…?*

Upcoming Self-assessment Exercise III

To avoid those that do not show up from potentially enjoying an additional point.

Reward?

If your group submitted a self-assessment AND
you have answered the surveys AND
your self-assessment is sufficiently close to our assessment,
then **you get an additional point for the project**.

"Sufficiently close" will be based on a statistical measure after data has been collected.

Rationale: if you can (sufficiently) correctly assess the quality of your work, then you demonstrate an ability to reflect on your progress and performance and be aware of your strengths and weaknesses concerning the course material. Demonstrating such an ability merits a reward (i.e., points).

Data

Data of your individual surveys will be cross-referenced with that of team projects.

Data of self-assessment exercises will be compared with our assessment.

Data will also be compared with your final grades.

Why? As stated earlier, to **assess the impact of certain learning activities**.

Will I share your personal data? **No!**

What may I do? Use aggregated data and (statistical) findings to:

- **Improve my courses**
- **Share experiences and best practices** with peers inside the institution (e.g., colleagues and IFRES) and outside the institution (SoTL articles, CS Education venues, …)

Any Questions?

Feel free to ask questions or express your concerns (via email).

Good luck !