Follow-up course BDR and GD

L3/MSI

2020/2021

Session 1: 13/11/2020 - 3h - from 17h to 20h

Points to cover:

- (1) DB – DBMS – steps for creating a DB: Conceptual data model – logical model – physical model
- (2) Relational databases: relational logical model/schema and relational DBMS – from conceptual model to a relational logic model

Outline:

- Lecture: Chap.1 + Chap.2.1
- Soucouf: from CMD to relational model – create relational model
- Presentation of MySQL Workbench and methods of creation of tables (3 methods)
- TD1-Ex1 The relational schema creation + correction
- TD1-Ex2 (via the graphical interface method)
- To Do for S2: finish creating the tables and register some records in the tables
- Moodle activate: Teaching resources (BDR_Chap1 / BDR_Chap2.1 / MySQL_Workbench) – TD (TD1_BDR_19.20 / upload correction in pdf)

Session 2: 19/11/2020 - 3h - from 17h to 20h

Points to cover:

- (2) Relational databases: Relational algebra
- (2) Relational algebra: organization of data in tables - keys (primary, candidate, foreign)
- (2) Operators in relational algebra: union, intersection, difference, projection, restriction, product, equi-join, external-joint (right, left), division, aggregation, grouping

Outline:

- Lecture: Chap.2.2 + Exercise in the lecture to be solved and corrected
- Moodle activate: Teaching resources (BDR_Chap2.2 / BDR_Chap2.2_Corrigé_Exercices) – TD (TD2_BDR_19.20)

Session 3: 20/11/2020 - 3h - from 17h to 20h

Points to cover:

- ▪ (3) Exploitation of data in SQL: Introduction LDD/LID/LMD

Outline:

- Rappel Chap2.2_Summary
- TD2
- Break 10 min
- Lecture: Chap 3.1 only the introduction
- Rappel: demo for writing code on MySQL Workbench
- To Do for S4: TD3 – Ex2 (obligatory)
- Moodle activate: Teaching resources (BDR_Chap3.1 / BDR_Chap3.1_Corrigé_Exercices) – TD (TD3_BDR_19.20 the one of Group 2) + upload TD2_correction

Session 4: 27/11/2020 - 3h - from 17h to 20h

Points to cover:

- ▪ (3.1) Creation of tables in SQL: LDD , create, delete, alter, rename

Outline:

- Lecture: Chap 3.1 LDD
- Lecture: Chap 3 SQL vs. Graphical interface
- TD3 – Ex1: Soucouf BD creating tables (1.1 already done in S1)
- Break 10 min
- Correction of Soucouf tables
- TD3 – Ex3 importing data from Excel to MySQL workbench + import Clients.xls only
- To Do for S5: TD3 – Ex2 (obligatory) + importing data from excel to Soucouf DB: Produit.xls (follow TD3 – Ex3) + installing Soucouf DB for S5 for queries +
- Moodle activate: Teaching resources (BDR_Chap3.1 / BDR_Chap3.2) – TD (TD3_BDR_19.20_corrigée_sansEx2)

Session 5: 4/12/2020 - 3h - from 17h to 20h

Points to cover:

- ▪ (3.2) Manipulation of data in SQL: LMD: insert, update, delete
- ▪ (3.3) Exploitation of data in SQL: LID: select/where

Outline:

- TD3 – Ex2 correction (take for evaluation 30%)
- Check that all installed DB Soucouf and uploaded data
- Lecture: Chap 3.2 LMD
- Lecture: Chap 3.3 LID
- TD4: start let them solve R1 to R5

- Correction of R1 to R5
- To Do for S6: homework: TD4 (R5 to R10) in groups obligatory

Session 6: 11/12/2020 - 3h - from 17h to 20h

- TD4 continue it all, let them solve then correct
- Exam notes and instructions
- Questions for Exam?

Session 7: 18/12/2020 - 2h - from 15h to 17h – Exam Finale 70%

- Final exam - 1h30min - 2 rooms with help of someone to monitor the other room with me
- Collecting the solutions and checking I have access to their databases - 30min