2018-05-08

Course Information for the Database Part of Technical Art History

All information about the course are available at https://people.dsv.su.se/~perjons/IKEcourse2018/

Teachers

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Schema for the Database Part of Technical Art History II

Wed 2 May

10-11 Lecture 1, Introduction, Room: L30, Teachers: Erik & Maria

11-12 Lecture 2, Conceptual modelling 1: Concepts, Terms, Reality, Definitions, Room: L30, Teacher: Erik

13-16 Lecture 3, Conceptual modelling 2: Conceptual modelling, Object-Class, Associations-Links, Multiplicity, UML Class Diagram, Generalization/Inheritance, Room: L70, Teacher: Erik

Mon 7 May

10-12, 10-16 Introduction Exhibition, Teacher: Ingvar Sjöberg

13-16, Lesson 1, Applying Conceptual Modelling 1 (Library case), Room: L70, Teacher: Erik

Tue 8 May

10-12, Lecture 4, Conceptual modelling 2: Repetition Conceptual Modelling and UML Class Daigram, Multiplicity again, Generalization/Inheritance, Copy-Template, Room: L50, Maria

13-16, Lesson 2, Applying Conceptual Modelling 2 (Museum case), Room: L70, S1, S2, Teachers: Erik, Maria

Wed 9 May

10-16, Project work, Room: L70, S3, Teachers: Erik, Maria

Mon 14 May

10-11, Seminar 1, Room: L30, Teachers: Erik, Maria

11-12 Lecture 5, Information Systems and Requirements: Use Cases and Requirements, Room: L30, Teachers: Erik

13-15 Lecture 6, Information Systems: Collection/Content management systems, BI systems, Data Science, Internet of Things, Room: L30, Teachers: Erik

15-16 Project work, Room: L30, Teachers: Erik

Tue 15 May

10-12 Lecture 7, Database Design 1: Relations, Conceptual Model to DB Transformations, Room: L30, Teacher: Maria

13-16, Lecture 8, Database Design 2: Database management systems, Room: L70, Teachers: Maria

Wed 16 May

10-12 Tutorial in MS Access, Room: L70, Room: L70, Teachers: Erik, Maria

13-16 Project work, Room: L70, Teachers: Erik & Maria

Thur 17 May

10-16 Project work, Room: S1, S2, Teachers: Erik & Maria

Fri 18 May

10-12 Project work, Room: S1, S2, Teachers: Erik & Maria

13-16 Seminar 2, Room: Aulan, Teachers: Erik & Maria

Assignments and Tutorial to Carry Out in the Database Part of Technical Art History II

Assignment 1: Develop a conceptual model in UML class diagram over a system that organize, control, and manage collections objects in museums. Preferably, you can focus on a certain area of the system, such as loaning and borrowing object. The conceptual model should include at least 8 classes as well as attributes, associations and multiplicity. All associations should have a name. Get inspired by https://en.wikipedia.org/wiki/Collections_management_system. The result will be presented in **Seminar 1.**

Assignment 2: Define all the classes, that is, the class name terms, using the genus-differentia method. The definitions should be based on the conceptual diagram. The result will be presented in **Seminar 1.**

Assignment 3: Develop a use case diagram for the system you develop. The final result will be presented in **Seminar 2**.

Tutorial: Carry out a step-to-step tutorial for developing a database system in MS Access

Assignment 4: Transform a part of the conceptual model from Assignment 1 to a database system in MS Access. The final result will be presented in **Seminar 2**. The requirement for Assignment 2 will be specified later.

PROJECT WORK - MODELLING

A. DECIDE WHICH PART OF THE COLLECTION MANAGEMENT SYSTEM YOU WANT TO MODEL

Get inspired by https://en.wikipedia.org/wiki/Collections_management_system.

B. DEVELOP A CONCEPTUAL MODEL OF A MUSEUM SYSTEM USING PLASTIC SHEETS AND POST IT NOTES – OR USE THE WHITEBOARD.

The conceptual model should include at least 8 classes as well as attributes, associations and multiplicity. All associations should have a name.

C. TRY THE draw.io TOOL

1. Go to https://www.draw.io/
2. Select Device (or Google if you want to store it in Google Drive)
3. Select New Diagram
4. Click on Blank Diagram
5. Rename the diagram, by click on the name (Untitled Diagram), and add a new name
6. Select UML down left side
7. Drag Class2 symbol to the modelling sheet. Rename the class
8. Drag another Class2 symbol to the modelling sheet. Rename the class.
9. If you want to add an attribute, just click on an existing and click on the blue arrow head
10. Drag the Association 1 symbol to the modelling sheet (see further down among the UML symbols to the left), and connect the two Classes.
11. Add multiplicity instead of “parent” and “child” name
12. Add name to the Association, by using the text

D. ADD THE CONCEPTUAL MODEL ON YOUR PLASTIC SHEET INTO IO DRAW

You can use these io.draw sheets:

GROUP 1: https://bit.ly/2FRPUu5

GROUP 2: https://bit.ly/2FUCvkR

E. DEFINE ALL CLASSES

Define all the classes, that is, the class name terms, using the genus-differentia method. The definitions should be based on the conceptual diagram. The result will be presented in **Seminar 1.**

Examination

Students need to participate in Lectures, Lessons, Seminars and the Tutorial. The requirements on the assignments need to be fulfilled.

Tutoring

During project work, students can get in touch with a tutor by register in the tutoring system via the web at https://tutoring.dsv.su.se/, or call using the phone.