CMPG223 Project

1. General

Part of the CMPG213 course required of you to plan and design a computerised system. This semester you will do the physical design, development and implementation of the project. Reports as well as other documentation must be done using a word processor.

2. What is required of you?

You have to complete the project that you have started in CMPG213. The prescribed textbook will give you theoretical guidelines.

For example, chapters 9 and 13 refer to process modelling.

Chapter 13 shows how logical process models can be converted into physical process models. You have to convert the logical models of your project into physical models.

Chapter 14 explains physical database design. You must be able to construct the database that you have designed during the first semester physically in a database management system. Ensure that the database is in 3NF and implemented efficiently.

Chapters 15, 16 and 17 discuss guidelines and techniques such as prototyping that you have to apply during output design, input design and designing of the user interface.

Chapter 19 explains the construction and implementation phases of a project. You have to do proper testing of specifications and programming code of your system. You have to test the entire system.

3. Documents to be handed in (see marking guide for details):

Please follow the marking guide to ensure that all items as well as the zipped source code are submitted on eFundi. The items to be submitted include the following:

1. Physical models: data and process
2. Screen print of database schema created electronically in the DBMS
3. Example code e.g. data code verifying the input from the input screen
4. User manual: getting started and technical requirements

4. Project demonstration

You have to demonstrate the project as a group via Zoom during an agreed appointment. Please ensure to have the following ready:

- PRIOR to your demonstration ALL documentation as well as zipped program source code must be submitted on eFundi.
- Email the lecturer a marking guide containing all detail regarding all project members and your system prior to the demonstration.
- It is very important to give usernames and passwords needed for all system functionality on the marking guide.
- Also be ready to evaluate each group member's contribution to the project during the demonstration.

CMPG223 Group Project Final Mark Sheet

NAMES OF GROUP MEMBERS: _____

_____

_____

_____

SHORT DESCRIPTION OF THE TOPIC: _____

_____

_____

PROGRAMMING LANGUAGE: _____

DBMS: _____

USERNAME & PASSWORD (IF REQUIRED TO GET ACCESS TO SYSTEM):

_____ _____

Criteria	Total	Mark
Physical Data Model • Entities • Attributes with correct data types • PK's • FK's • Relationships • Referential Integrity • 3NF • Efficient design	25	
Physical Process Model • All use cases (scope items) are indicated as processes • Data flows for maintaining all entities of data model • Data flows for all business process steps of scope • All entities of data model appear as data stores • All actors of use case appear as agents	20	
Screen print of database schema created in DBMS according to physical data model (Hard copy)	10	
Screen print of example programming code for maintaining a child entity of the data model and illustrating the efficient reuse of code (e.g. making use of methods)	10	
Screen prints of two reports generated from your system and providing: • summarized information, • professional layout, • well planned	10	

• sorting or ordering, • fast and effective searching of data (allowing for parameters e.g. per time period)		
User manual: • 'getting started', i.e. steps to follow to get the system installed • technical requirements, i.e. system requirements in terms of RAM, HDD space, processor speed	5	
Detail diary of time spent by each member on the project and/or GitHub or BitBucket screen prints	10	
ALL above documentation and source code submitted on eFundi	5	
Zoom Presentation / Demonstration: • Whole team participates • On time for appointment • Computer set up correctly • Questions answered correctly	10	

System itself:
• Professional and functional
• For all tables identified in data model, functionality to :
  ○ create new records,
  ○ update records
  ○ remove records
  ○ input data validation
• Integration test, i.e. correctness of input and output
• Reports: accuracy of output
• Calculations, sorting, fast and effective searching of data
• User friendly system, help function on one form only e.g. tool tips, explaining the use of the form, search for keywords
• Efficient program code
	75	

Complexity/ level of difficulty	10	
Bonus marks	10	
System not ready for demonstration on date and time of appointment	-50	
TOTAL	**/200**	