**[Group Assignment - Term Project Phase 1 - Conceptual Design](https://ku.blackboard.com/webapps/assignment/uploadAssignment?content_id=_259607_1&course_id=_30974_1&group_id=&mode=view)**

This is a GRADED GROUP assignment  (forming 30% of your term Project grade).

DEADLINE : **1st March 2020 Sunday 23:30**

**Conceptual Design (Entity Relationship diagrams)**

This assignment made of 2 sections, will form the first step for your term project, so pls pay attention.

SECTION 1 : BRs

SECTION 2: ERD

The outputs of this phase are

1. an ER Diagram based on these BRs, both a link to and pdf of your ERD
2. a report.

SECTION 1: BRs

You may use  BRs available  in Term\_Project-BRs.pdf for this section. This section's output will be PART 1 of your Phase I report (see below):

1-Write a paragraph (3-4 sentences) defining/framing the subject. Use of/appying the information from academic writing course you have taken is a bonus.

2-Write 10-12 business rules (BRs) . Pay attention to good business rule characteristcs (see lecture slides and books). Make sure all business rules are numbered (see Pet Shelter example)  A chapter on Business Rules was uploaded to Extras, see related announcement W3

3- The following (including the numbers) shall be taken as guidelines

* BRs shall address min 6 entities, max 12-15
* BRs shall specify the identifier/key of each entity
* BRs shall provide information on the attributes of entities: Depending on the entity 4 to 15 attributes are expected, whether these attributes are optional or mandatory, simple/ composite/ derived/ multivalued shall be specified by the business rules (see ERD examples in exercises)

The output of this section is Business Rules which will be input for section 2.

SECTION 2 : ERD you will be representing your BRs from section 1, in an E-R diagram.

Your E-R Diagram shall include:

i) Entities, including the related attributes. Identifying whether the attributes are mandatory or optional, attribute types and lengths of these attributes.

ii)  Identify all the candidate key(s) for each entity and select a Primary Key for each.  At this stage you will only show candidate keys and primary keys in the ER diagram, no foreign key shall be within the ER diagram.

iii) Relations, pay attention to name relations on both sides, cardinalities, whether the relations are optional/mandatory on either side.

At any point if you feel a need to modify existing BRs or add a new business rule, that’s OK just go back to your BRs and do the necessary modifications, don’t forget to include the recent BRs in your report so that I consider these when evaluating the ER.

*You will be uploading the following items/documents to blackboard for this assignment:*

1-  The E-R diagram of your Business Rules, drawn by LucidChart.You will be sharing the lucidchart access link as well as your ER Diagram in pdf format. See Notes below and installation folder how to create the access link and how to convert ER Diagram to pdf.

2- A short report in word format. Report shall have 3 parts:

PART1- Include the BRs you used during the E-R construction.

PART2- In Lucidchart create an access link to your E-R diagram (See Note1-3 - we will see the steps in the lecture on Tuesday 5th November too). Put the access link in the word document.

PART3- For each entity in your ER diagram provide an instance (a sample record) of this entity in the word document.  For example if you used student, courses, instructors entities the word document shall include one instance for student,  one instance for courses, one instance for instructors.

NOTE1:  In Lucidchart name your ER diagram as  COMP306-<YourGROUPName>\_Phase1 eg COMP306-GROUP1\_Phase1.

NOTE2:  Choose Share on your document and create an access link or alternatively while in your document from file menu choose Share "File -> Share". You will be including this link in report Part 2 so that I can access your document online. See attached Lucidchart.pdf for screenshots.

NOTE3: Download your ER diagram in pdf format using "File-> Download as -> PDF" .This pdf will be uploaded to blackboard as part of Phase 1.

All your uploaded documents shall have a header (it doesn't have to be a separate page), including

* Course code and course name,
* Assignment number/name, the date
* Group name, group members (ids, full names), subject no and name of your project

The ER Diagram of this phase will be input for Phase 2 Logical Design of your term project.

Have a nice weekend,

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