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**Project**

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| Instructor: | Emad Nasrallah |
| Class: | **CSD 4464** |
| Due Date: | Dec. 12, 2019 |
| Percentage of Final Grade: | 30% |

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| **INSTRUCTIONS FOR PROJECT**   * Read the instructions carefully * Read the rubric carefully * Working in groups of Maximum 4 students * Submit via Moodle (only 1 of the group submits) * Only **pdf** file is accepted * Be ready for the system demo on the due date. * Groups who submit identical or semi identical work will be given zero and reported for academic dishonesty |

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| TOTAL MARKS: 100 MARKS |

**Description**:

Create a simulation of a primitive banking system that allows the user to create bank accounts for clients, and allow them to do some of the bank transactions.

The client can have multiple accounts with different types and the clients should be able to:

1. Display their current balance
2. Deposit money
3. Draw money
4. Transfer money to other accounts within the same bank
5. Pay utility bills
6. Other transactions you would like to add.

Create a suitable database using MySQL or any DBMS you would like to use, fill it with enough data that enables you to test the program completely with all its requirements.

So, how many tables and columns in each table and the relation between tables or if it’s a noSQL database its up to you to decide.

It must be a Java GUI system, so you should create a suitable design that supports all the requirements completely but make sure its a good looking design.

Note:

* There are different types of bank accounts, you should google it to know more
* If you find you need further details or you have any questions about the system which are not mentioned here in the description, then you should answer by yourselves.
* The description here is giving you the minimum requirements, only.

**How to submit**

* You will work within groups of 4 students maximum.
* You must create a report as a PDF file that has:
  + Cover page showing your names and id’s
  + Index (table of contact)
  + Introduction a brief about the system
  + Full description of the system including the minimum requirements you have up at the above description
  + Explaining the classes with their attributes and methods (not code)
  + Explaining exactly what the system can do (all tasks)
  + Explaining how the system is working like you are creating a user manual
  + The source code of all the system
  + Some screenshots showing the errors or exceptions you get while you are testing the system, and explain how you could solve them.
  + Some screenshots showing the system is working without errors
  + Conclusion: explain how did you create the system, what did you do to collect more information and details about banking systems and different types of accounts. Explain the challenges you faced and how you could defeat them. Explain how you distribute the work among you, so explain what exactly each group member has done.
  + List of references