Assessment Task DECEMBER 2017 - JANUARY 2018

Module Title	**SYSTEMS DEVELOPMENT**		Module Code	**GTUM42EKM**
Assessment title	**COURSEWORK 2**		Assessment No	**Cw2**
Module Leader	**MR. DOMINIC K. LOUIS**	Tutor		

LO's	**Module learning outcomes covered by this task** (from the Module descriptor)
1	
2	*Critically discuss and select appropriate systems development process models to address a range of typical systems development problems*
3	*Select and apply appropriately from a range of tools and techniques used in the various stages of systems development*

Guidelines and background to the assessment			
Hand in date	**TBA**	Assessment type	**Problem-based Exercise**

Coursework 2: (40 marks)

Of-the-Month Club (OTMC) is an innovative firm in Ghana with head-office in Accra and branch offices in Kumasi, Sunyani, Tamale and Takoradi. OTMC sells memberships to people who have an interest in certain products. People pay membership fees for one year and each month receive a product by mail. For example, OTMC has a coffee-of-the month club that sends members 250 kilograms of special coffee each month. OTMC currently has six memberships (coffee, chocolate, wine, beer, flowers, and computer games), each of which costs a different amount. Customers usually belong to just one, but some belong to two or more. When people join OTMC, the telephone operator records the name, mailing address, phone number, e-mail address, credit card information, start date, and membership service(s) (e.g., coffee). Some customers request a double or triple membership (e.g., 250 kilograms of coffee, 4 cartons of beer). The computer game membership operates a bit differently from the others. In this case, the member must also select the type of game (action, arcade, fantasy/science fiction, educational, etc.) and age level. OTMC is planning to greatly expand the number of memberships it offers (e.g., video games, movies, toys, cheese, fruit, vegetables), so the system needs to accommodate this future expansion. OTMC is also planning to offer three-month and six-month memberships.

Requirements:

(a) Provide a formalized system's Object model of OTMC's business transactions and an instance diagram of the model with the following:

   (i)   The head-office coordinates transactions and manages activities of all the 4 branches

   (ii) Membership types by clients and the fee payable

   (iii) Transactions involving products mailed to members are done at all branches

   Explain the Object model drawn and justify why models can assist the analysis and design processes of the system. **[20 marks]**

(b) Create a Use Case diagram for the object model in question (a) above and justify why Use Cases are critical in eliciting user and system requirements. **[10 marks]**

(c) Create a Sequence diagram, performed on per Use Case basis for question (b), and examine the flow of method calls within the system. **[10 marks]**

NB: Students must determine attributes of the object model drawn and must use an appropriate CASE tool to model the system as requested. Appropriate referencing of works is highly required. A plagiarized work will be rejected and forwarded to the Academic Dishonesty Committee for sanctions.

How to pass this Module

In order to pass this assessment task, you need to achieve a minimum grade of 40%:
- ensure that you have fully met **all** the learning outcomes and tasks as detailed in this "Assessment Task" brief
- submit all the work required by the given deadline

Before you submit your work, we strongly recommended that you check to ensure you have answered all of the questions and that you have met all of the learning outcomes.

How to submit your assessment

Please submit you assessment via the dropbox at the Graduate School's academic support office on the submission date

For penalties on plagiarism please refer to GTUC Regulations.

Important University assessment rules for you to note

You need to submit your assessment task on the submission date noted above. If you do not submit your assessment task by the submission date and have not requested and received an approved extension or deferral, you will fail the Module. Any extension or deferral request must have been approved prior to the deadline for submission.