University of Leicester
Department of Informatics
2018/19 – Financial Services Information Systems
CO7218
Assignment 2

Due on Friday 15th March 2019

I. Objective

- The assignment develops the students' skills in programming algorithms used in financial services.

II. Important Dates:

1. Starting date	Thursday 28th February 2019
2. **Submitting date**	**Friday 15th March 2019, 23.59 pm**

III. Policy on Plagiarism (Section 5.4.3 from M.Sc. Handbook):

- 5.4.3. Department of Computer Science Rules **The Department operates the principle that both the plagiarised and the plagiariser are equally guilty**. Students are therefore responsible for ensuring that their work is not plagiarised, and note that this includes ensuring that any work stored on the departmental and/or university computer systems is suitably protected.
- Note that the Department reserves the right to exact any penalties which are in accordance with the University's code of practice on plagiarism.
- The Department has its own set of regulations concerning plagiarism which can be found in the Study Guide of any module. The Department takes this issue very seriously, and students should note that on occasions in the past some very serious penalties have indeed been applied, including reduction of module mark to zero, and overall reduction of degree class.
- **Additionally: Plagiarizing any part of the assignment will result in getting ZERO in the whole assignment.**

IV. Assignment #2

Your task in this assignment is to develop a small application, i.e. a graphical user interface with the necessary associated processing, which implements and demonstrates loan repayment schedules using the Equal Total Payments method. The application should, in general, work as follows:

- The user inputs in the screen her choice of loan amount, annual interest rate, loan period (in months or years).

- Upon submission of the previous items, the application performs the necessary calculations according to the input data and presents to the screen the loan amortization schedule e.g. according to the following table:

Payment No	Payment Amount	Principal Amount Paid	Interest Amount Paid	Loan Outstanding Balance
1				
2				
…				

Notes:
1. You may choose any widely applicable programming language (e.g. Java, C#) and user interface technology (e.g. browser-based or other) to implement the application (as long as it runs in a Windows XP or later OS and does not need any special software or even hardware). Please ask if in doubt on which programing language to use.
2. For simplicity, there is no need to store any results in a database or other persistence means (although you may do so if you wish).
3. If necessary, rounding should be performed to two decimal numbers.
4. The assignment will be marked according to the following criteria:

Criteria	Weight
Application Implementation Completeness and Correctness	40%
User Interface Design and "Look and Feel"	25%
Source code design and programming practices	20%
Quality of assignment's final report	15%

V. Submission Notes:

- Submissions should contain the following deliverables:
  1. **The source code developed, the "byte"/executable code and the necessary scripts and a file with instructions on how to set up and "run" it in a Windows XP or later OS.**
  2. **A concise report (in .pdf format)** discussing the application code design, any assumptions made and suitable explanations of the source code files (or anything else you think it is relevant for better understanding your work).