**IFN501 Assessment 2–Part 2 (Individual)**

**Project (Programming)**

**Weighting – 30%**

**Online Submission of Codeand Documentation**

**Due Date: Friday 25th May 2018by 9.00 pm (Week 12)**

**Code Demonstration will be to the tutor during your practicalsessions in Week 13.**

**Note: You are advised to use only the C# concepts taught in this Unit through Lectures and Practical Exercises. Otherwise, you will incur penalty.**

**Problem Specification:**

David Jones, a department store, hired you as a Software Engineer to design and develop a **C# object-oriented solution** to identify the **suppliers** to whom David Jones owes more than $600.00

The David Jonesstore keeps the following information for each of its **supplier**:

1. Suppliername (must be between 5 and 15 characters)
2. Account number (must be 6 digits and start with digit ‘2’)
3. Account balance ($) at the beginning of a particular month, that is, amount owing by David Jonesto this supplier ( >= 0 )
4. Total of all purchases ($) by David Jones from this supplier this month
5. Total of all payments ($) madeby David Jonesto this supplier this month; no overpayments are to be made by David Jones
6. Amount owing ($) at the end of the month by David Jones to this supplier

**Program input:**

The program shouldtake the following**input**in the **order** given, and by using the appropriate prompts:

1. Check if the user wishes to track any supplier’s status, and if so:
   1. the **number** of suppliers whose details are required; the program must allow for any number of suppliers greater than zero
   2. the**details** of suppliers (items (a)-(e)specified above), supplier by supplier, using an **appropriate data structure**(taught in lectures) to store information for a number of suppliers.

**Note:**

1. **You are required to use the object-oriented concepts from C# taught in lectures.**

**You are required to create two classes - one for supplier, and one application class for creating the necessary objects.**

1. **Your program must generate an appropriate error message if any input does not follow the required criteria and then request the user to re-enter the input.**

**Program output:**

The program should display

1. All the **account numbers** with the corresponding **accountbalances** at the end of the monthfor all suppliers, and
2. **For any supplier** to whom David Jones owes more than $600.00 at the end of the month, the program should display the message: “Payment of this account is due now."

**Note:**

1. The output must be displayed in **a readable format.**
2. Test your code using your own appropriate test data to cover **all possible scenarios.**

**Project Deliverables:**

1. **Program Code and Code Documentation (20%)**

**Soft copy** of the **code** and the **documentation**(using Word) to be submitted **online** via Blackboard by **Friday9 pm25th May (Week 12).**

* The **code documentation** must include the following:
  1. Pseudocode
  2. Data/Variables
     1. Data fields for class(es)
     2. Local variables (if any) for class(es)
  3. Constants
  4. Class diagrams
  5. Properties and Constructors for **supplier**class
  6. A sample of your **test data** covering **all the possible scenarios** with the corresponding outputs (include the screenshots)
* Your **programcode** will be evaluated by:

1. Assessing the conformance of the submitted program to the **functional requirements** outlined above. Does the program meet **all** these requirements, and how well?
2. Assessing the "means" of accomplishing the task by examining the **program structure**, **style**, **clarity** and **conciseness**, and if your **code** is written in a way that is **clear** and **maintainable**.
3. **CodeDemonstration (10%) – during scheduled practical sessions in Week 13**
4. You will be asked to**execute your code** by **inputting**data provided by us during the practical sessions.
5. You will be asked to **do a simple modification** to your original code to perform the same functionality.

**Note:**

1. You are allowed to bring **only the softcopy of the code**you submitted online to the practical session; **no notes** are allowed.

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