



## Introduction to Factual Programming and HCI

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### Instructions:

- Read the question carefully to ensure proper understanding of the task at hand.
- Evaluation will consider aspects such as **clean code**, **good UI** and above all a working software.

### Practical CA: Electric Bill Calculator (10Mks)

Your Grand Mother has difficulty in calculating her electricity bill and she feels she is being cheated by the electricity supply company and she ask you as a software engineer to create her a Desktop application that can help her calculate her Bills. The procedure for calculating electric bills is as follows

- To calculate a bill, we expect the user to enter two (2) meter readings, the **Present Reading(KWh)** and the **Previous Reading(KWh)**.
- The **Energy Used** is given by the Difference between these 2-meter Readings
- The **Energy Cost** is calculated by multiplying the **Energy Used** by the **Cost per KWh.**(consider the cost per Kwh is **10FCFA**)
- To get the Total monthly bill, we need to add a certain **Tax value** to this **Energy Cost** (for this problem, consider a tax per month of **500FCFA**)

#### **Example:**

Present Reading: 200KWh

Previous Reading: 100KWh

Energy Used = 100 kWh

Cost per kWh = 10FCFA

Energy Cost =  $100 * 10 = 1000\text{FCFA}$

Monthly Tax = 500FCFA

Monthly Bill =  $1000 + 500 = 1500\text{FCFA}$

### **Task**

- With your knowledge in VB.Net, design and implement this Application **(6Mks)**
- Name the title of Your windows form application **Electric Bill Calculator (1Mk)**
- Generate a .MSI and .EXE installation package of your application, so your Grand Mother can easily install on her computer and use. **(3Mks)**. Your installation package must have the following properties
  - An Author
  - An Icon
  - A target Platform. (x86 or x64)
- Create a Folder on your Desktop containing your project files and your **.MSI** and **.EXE** packages. The folder name Should be your Name,

*Goodluck &  
Merry Christmas in Advance*