COLLEGE OF NATURAL & APPLIED SCIENCES, ALLIED HEALTH AND NURSING

DEPARTMENT OF COMPUTER & INFORMATION SCIENCES

FALL 2022

COURSE NAME:	**VISUAL PROGRAMMING**
CODE:	**CPTR262**
DUE DATE:	**NOVEMBER 8, 2022**
CONTENT:	**Windows Form & Databases**
ASSESSMENT TYPE:	**ASSIGNMENT #2 (INDIVIDUAL)**

INSTRUCTIONS: Your application should utilize GUI components and a database to create a solution for the scenario. You are required to submit a softcopy version of your assignment. **ALL STUDENTS are required to record a video demonstration showcasing their solution. <u>PLAGIARISED CODING SOLUTIONS WILL RESULT IN A GRADE OF ZERO</u>.**

SCENARIO

IN-AIR Airline as contracted you to create a reservation system that will incorporate airline scheduling, passenger reservations and ticket records. Your solution should accept and store the passenger's name, destination, flight date, seating preference and seating number. Before any data is entered or viewed, the user must login. Your solution should also calculate the total cost that a passenger will be charged for a ticket to their destination. For each flight when a reservation is made a seating number from 1 to 366 is issued to the passengers. If a passenger is trying to book a flight and seating numbers 1 to 366 has already been issued, then the system should generate the following message: "SORRY FLIGHT IS AT CAPACITY!". Your solution should be able to display the entered data as well as all the calculated values.

The current destinations are:

From	To	Distance (km)
Jamaica	Azerbaijan	11,381
Jamaica	Timbuktu	7,819
Jamaica	Eritrea	12,184
Jamaica	Somali	13,318

The following are the air fare cost per seating preference:

- First Class – $18 per km

- Business Class – $12 per km

- Economy Class – $8 per km

Calculations:

- **Total ticket cost before tax** = air fare cost * distance

- **Total ticket cost after tax** = Total ticket cost before tax + Tax

- **Tax** = 16.5% of Total ticket cost before tax

MARK SCHEME

Areas Assessed	Marks Allocated	Marks Received
Create appropriate Windows Form with appropriate form controls/components Must include the following: • Login Screen • Data Entry Screen • Data Display Screen	10	
Create an appropriate database	2	
Create at least two database tables	2	
At least two login credentials	2	
Use Appropriate Data Types	6	
Use of appropriate ADO.NET classes & methods	8	
Use of appropriate SQL commands	6	
Correct Inputs	4	
Correct Processing/Calculations	6	
Correct Output	4	
Creativity of form design	4	
Video Demo	6	
Total Marks	60	