

CATHOLIC UNIVERSITY OF EASTERN AFRICA
FACULTY OF SCIENCE
DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

CMT 434 PYTHON FOR DATA SCIENCE

CONTINUOUS ASSESSMENT TEST

Date: 21/11/2024

Time: 1 Hour

Instructions:

All codes to be written in PYTHON.

This is group work.

Indicate the names and admission numbers of group members on the answer sheet

Name your answer sheet as Group [group Number] _Task4. E.g Group1_Task 4

Submit your work by uploading to Link provided in ODEL

Task 4 (10 Marks)

The data in the attached comma separated values file named loan.csv is for an extract from a certain microfinance bank. Study it and use it to answer the questions that follow:

Write code that

- a) Binarizes the *Awarded* column by converting all *Yes* to 1 and all *No* values to 0 and records the results by updating the same file (loans.csv). [2 marks]
- b) Using the updated loans.csv file, determines the relationship between the bank balance and loan award and if the relationship is strong uses it to predict if a customer will be awarded a loan or not. The customers balance is input by a user. [4 marks]
- c) Using the updated loans.csv file Determines the relationship between frequency of deposits and loan awards; and if the relationship is strong predicts whether a customer is awarded a loan or not. The customer frequency of deposit is input by a user. [4 marks]