جامعة
القاهرة الجديدة
التكنولوجية
NEW CAIRO
TECHNOLOGICAL
UNIVERSITY
NCT

	Sub.	Re-Sub
	✓	

LOs	LO3		LO4	
Sub				
Resub	P	Not Achieved	P	Not Achieved
Student Name		**Code**		**Section**	
Unit No. & Title	ICT221- Java Programming I				
Qualification	Higher Diploma of Technology in Information and Communications Technology (Y2).				
Assignment No.	2		**Assessor Name**	Dr. Ghada Maher	
Evidence	Document		**IV Name**	Dr. Amany AbdEl Samea	
Hand out date	2/5/2024		**Hand in date**	9/5/2024	

Targeted LO	Targeted criteria	Criteria achieved	Assessment comments
LO3	Pass		
	Merit		
	Distinction		
LO4	Pass		
	Merit		
	Distinction		

Assessor Signature: Dr. Ghada Maher

Criteria reference	Targeted criteria	To achieve the criteria the evidence must show that the student is able to:	Evidence	Page numbers
LO3 Apply the Methods and Arrays	Pass	**P10** Implement the Methods in Java programming language. **P11** Apply the one-dimensional array to store a set of data, perform several operations on this data, and print the results.	Document and observation sheet	
	Merit	**M5** Apply the multidimensional array to store a set of data, perform several operations on this data, and print the results.	Document and observation sheet	
	Distinction	**D3** Integrate the array with a method to implement a more efficient program.	Document and observation sheet	
LO4 Explore the basics of Objects and Classes	Pass	**P12** Create classes with variables and methods. **P13** Execute a class constructor. **P14** Create an object of class.	Document and observation sheet	
	Merit	**M6** Implement the important methods of the String class to manipulate string in Java.	Document and observation sheet	
	Distinction	**D4** Create an array of objects.	Document and observation sheet	

IV Signature: *Amany Abdel Samea*   **Learner's signature:**   Date: 29/4/2024

Scenario

You are an ICT technician working at Sweaters and Sweats. Sweaters and Sweats is a chain of stores specializing in cotton apparel. The company wants to open a new store in one of four malls around the Atlanta metropolitan area. The company has indicated five criteria that are important in its decision about where to locate: proximity of schools and colleges, area median income, mall vehicle traffic flow and parking, quality and size (in terms of number of stores in the mall), and proximity of other malls or shopping areas. The company has weighted each of these criteria in terms of its relative importance in the decision-making process, and it has analyzed each potential mall location and graded them according to each criterion as shown in the Table 1:
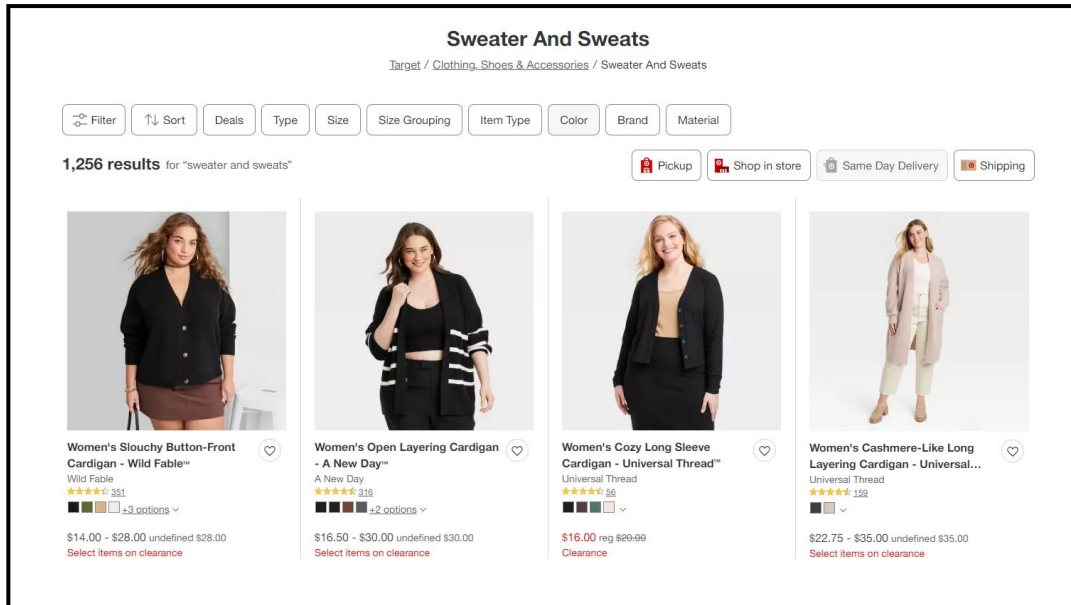

Table 1. potential mall location and graded them according to each criterion

Decision Criteria	Weight (0 to 1.00)	Grades for Alternative (0 to 100)			
		MALL 1	MALL 2	MALL 3	MALL 4
School proximity	0.30	40	60	90	60
Median income	0.25	75	80	65	90
Vehicle traffic	0.25	60	90	79	85
Mall quality and size	0.10	90	100	80	90
Proximity of other shopping	0.10	80	30	50	70

Task No.01

1. **Implement** a void scoring method ( ) to calculate the score of each mall by using the scoring model. This method takes from the user the values of weight of decision criteria and the grades for this Mall, then prints the score of this Mall.

2. **Apply** the one-dimensional array named weight [ ] to store the weight of decision criteria.

3. **Apply** a multidimensional array named grades-of-all malls [ ] to store the related data of all malls in the above Scenario.

4. **Integrate** between the one-dimensional array in 2 and the multidimensional array in 3 with an improved scoring method ( ) that was created in 1. The improved scoring method ( ) takes a one-dimensional array that named weight [ ] and the multidimensional array that named grades-of-all malls [ ] to calculate the score for all Malls and print the best decision.

Task No.02

1. **Create** a class named best decision, **Execute** a constructor in this class to take the weight of decision criteria and the grades of alternatives. Also, this class includes a score method to calculate the score of each alternative and select the best decision.

2. **Implement** a Java built-in method to find the length of the weight array that is used in the number (Task 1-2).

3. **Create** an object named Decision-A from the above created class in 2.

4. **Create** an array of objects from the created class in 2. This array of objects named decisions (length of array = 5).

Resubmission Feedback:

*Please note resubmission feedback is focussed only on the resubmitted work

Assessor Signature: Dr. Ghada Maher	**Date:** **14** / **5** /2024
Internal Verifier's Comments:	
IV Signature: *Amany Abd El Samea*	**Date:** / **5** /2024