



Daffodil International University
Department of Computer Science and Engineering

Faculty of Science and Information Technology

Midterm Examination Semester: FALL 2019

Course Code: CSE214 Course Title: Object Oriented Programming

Section: ALL Course Teacher: ALL

Time: 1 hr 30 minutes

Full Marks: 25

Question 1:

03 + 07

(a) How encapsulation is different from inheritance. Why encapsulation is essential in OOP. Give example.

(b) Consider a situation where Student register Course. Student is represented by the properties: studid of type integer, studname of type string and cgpa of type double. Course is represented by the properties: coursecode of type integer and courseTitle of type string. A student register a course in a semester and year. Both the Student and Course has *display()* method that display the data members. Both of them also has constructors. The main method in the Test class create necessary object and call the method to function as required.

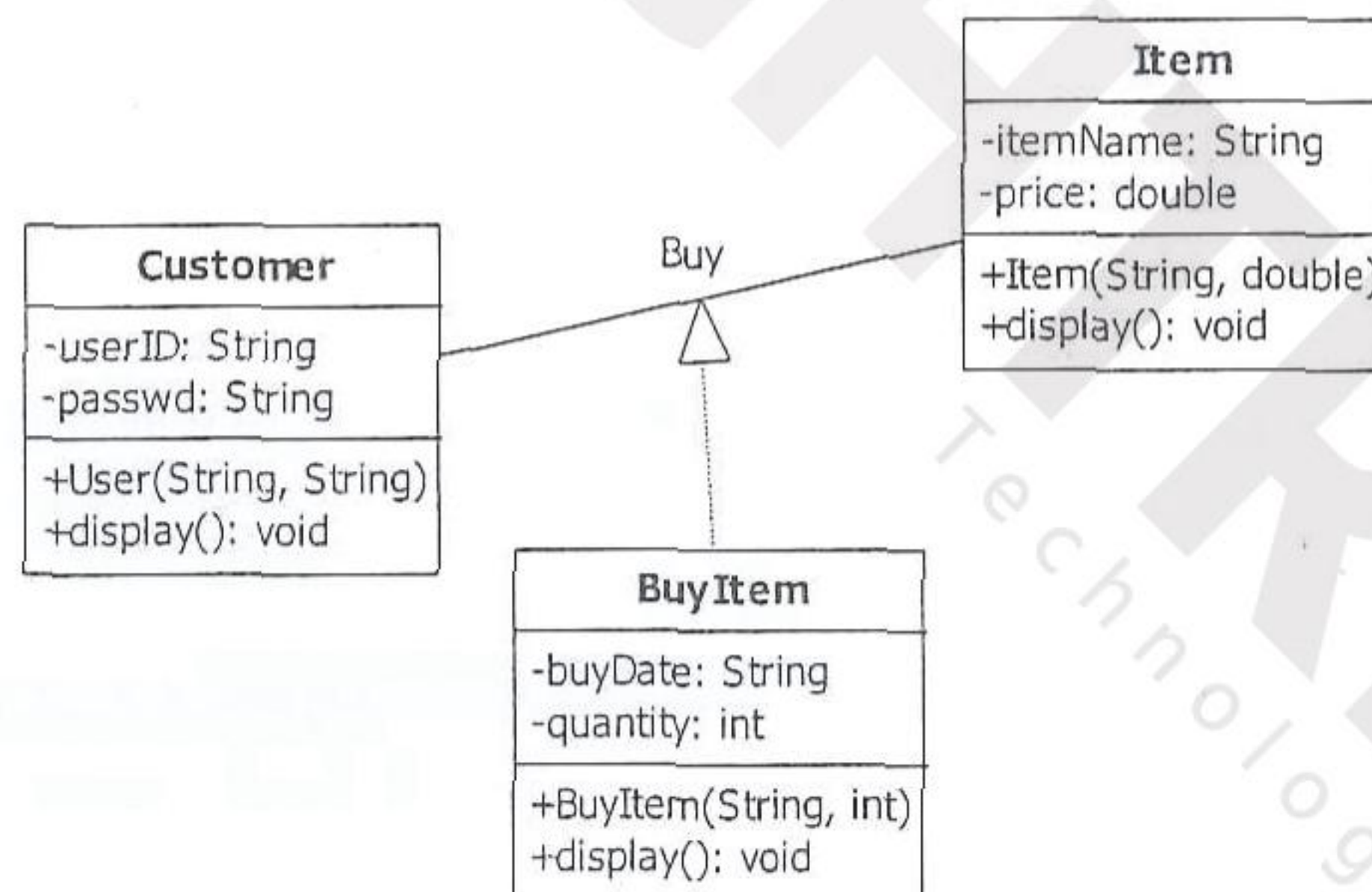
Propose an object model (class diagram) using UML notation based on above scenario of the registration.

Question 2:

03 + 07

(a) How is object different from class. Give example to illustrate the difference.

(b) Consider the following UML model:



- = private ; + = public ; # = protected ; Underline = class

(1) Identify and describe the UML model shown above.

02

(2) Implement using Java and create necessary objects in the main() method and show their respective operations.

05

Question 3:

03+02

(a) Why Java main method signature is "*public static void main(String [] args)*"

(b) How byte code is generated in Java programming.

----- Good Luck -----