Institute of Business Administration

CSE 142 – Object Oriented Programming Techniques

50380 - Spring 2021

Day & Date: Thursday, February 25, 2021

Task One

Implement the class in JAVA as represented through following UML Class diagram

Fraction
- numerator : int
- denominator : int
+ < <constructor>> Fraction()</constructor>
+ < <constructor>> Fraction(int, int)</constructor>
+ setNumerator(int) : void
+ getNumerator() : int
+ setDenominator(int) : void
+ getDenominator() : int
+ addFraction(Fraction) : Fraction
+ subFraction(Fraction) : Fraction
+ mulFraction(Fraction) : Fraction

Task Two

Write a test application in JAVA to test the Fraction class by performing following steps

- Create an array of five instances of Fraction
- Ask user for the numerator and denominator for first two fractions and instantiate them
- Let third fraction be the sum of the first two fractions.
- Let fourth fraction be the difference of the first two fractions
- Let fifth fraction be the product of the first two fractions
- Display first two fractions, their sum, their difference, and their product