Assignment 1

Q1. Compare the various versions of Java with their successor and predecessor versions for newly added and deprecated features.

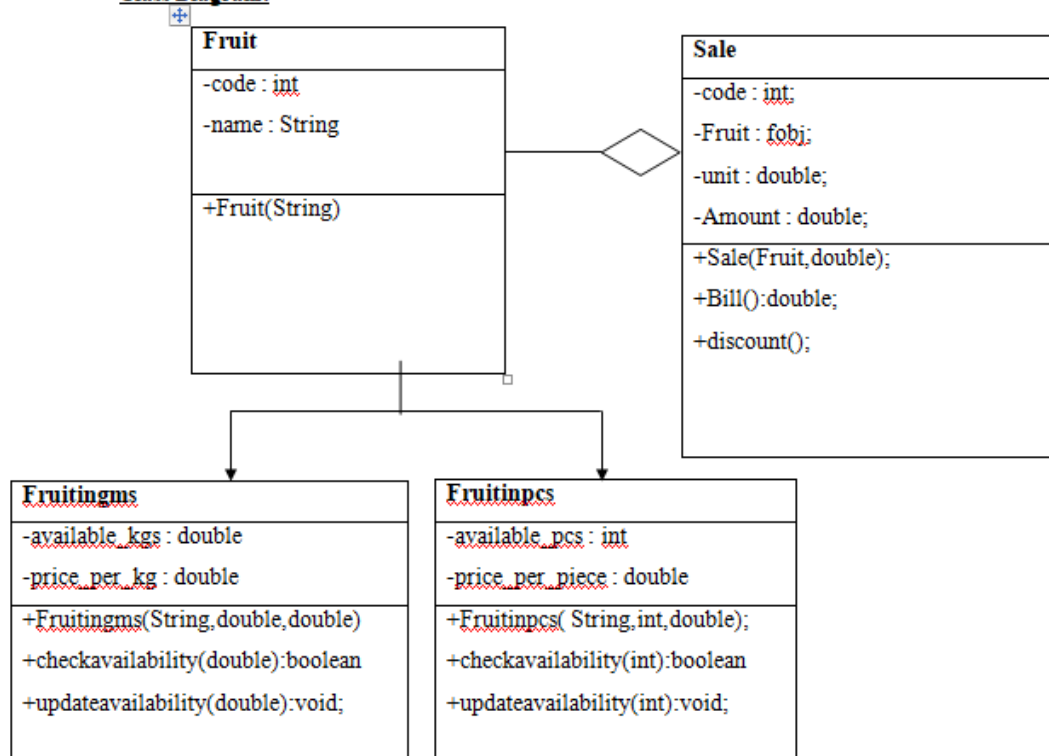Q2. Write a Java application for the following scenario.

Problem Description:

"XYZ Fruit Shop" is a growing fruit shop in Dehradun city. Since they are offering quality and fresh fruits to customers in best price, their customer strength is increasing tremendously. In this regard they need billing software to provide a fast and accurate service. Billing software also supports high to maintain sales data.

Business Rules:

1. *Every item stock should be verified for availability before billing.*

2. *5% discount should be provided for purchase more than Rs. 500/-*

3. *All fruits except banana are selling for price-per-kilo gram.*

4. *Selling Banana for price-per-piece.*

Class Diagram:

Implementation Details:

Fruit Class

This is root class.

Fruitingms Class

- ➢ Write constructor method **fruitingms()**for this class.

- ➢ Write **Check _availability()** method which takes "**need**" in kilograms as input and returns false if **available_kgs** is less than "**need**" else return true.

- ➢ Write **update_availability ()** method which takes **"need"** in kilograms as input and reduce this **"need"** from **available_kgs**.

Fruitinpcs Class

- ➢ Write constructor method **fruitinpcs()** for this class.

- ➢ Write **Check _availability()** method which takes "**need**" in pieces as input and returns false if **available_pcs** is less than "**need**" else return true.

- ➢ Write **update_availability ()** method which takes **"need"** in pieces as input and reduce this **"need"** from **available_pcs.**

Sale Class

- ➢ Bill() method

- ➢ Validate availability of fruit before billing

- ➢ Calculate amount by product of unit and price

- ➢ Provide discount by calling discount() if amount is greater than 500

- ➢ Update availability of fruit after billing

- ➢ Discount method calculates discount of 5%.

Demo Class:

- ➢ This Class is a Starter Class.