SunBeam Institute of Information Technology

Java Assignment 4

Q1) Apply inheritance n polymorphism

a) Arrange Fruit, Apple, Orange, Mango in inheritance hierarchy
b) Properties (instance variables) : color: String, weight : double , name: String, isFresh: boolean
c) Add suitable constructors.
d) Override toString correctly to return state of all fruits (including: name ,color , weight)
e) Add a taste() method : public String taste() which will be an abstract method

Apple: should return "sweet and sour"
Mango: should return "sweet"
Orange: should return "sour"

f) Add all of above classes under the package "com.app.fruits"
g) Create a Class FruitBasket , with main method inside it. Use it for testing
h) Prompt user for the basket size n create suitable data structure and give options

0. Exit
1. Add Mango
boundary checking
basket [counter++]=new
Mango(nm, weight, color); break;

2. Add Orange

3. Add Apple
NOTE: You will be adding a fresh fruit in the basket, in all of above options.

4. Display names of all fruits in the basket. eg : for-each --- null checking --getName()

5. Display name, color, weight, taste of all fresh fruits, in the basket. eg : for-each , null checking --toString , taste, isFresh: getter

6. Display tastes of all stale (not fresh) fruits in the basket.

7. Mark a fruit as stale i/p : index
Eg: setter : isFresh : false
O/P: error message (in case of invalid index) or mark it stale.

8. Mark all sour fruits stale (optional) eg : for-each , taste --equals(String)