

Assignment 04

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()

For Fruit : it should return "no specific taste"

Apple : should return "sweet n 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

case 1 : 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)