**Create basket of fruits . Prompt user for the capacity of the basket.**

**Available fruits are**

**Apple (sweet n sour in taste)**

**Mango (sweet)**

**Orange (sour)**

**Allow user to add any fruit dynamically in the basket.**

**User should be able to display the name of the fruit & taste , for all the fruits added in the basket.**

**Hint : name : data member**

**taste() : a method**

**============================================================**

**Step 1)**

**Create class**

**(fruit.java)**

**==================**

**package** FruitInheritance;

**public** **class** Fruit {

**private** String name;

**public** Fruit(String name) {

**this**.name = name;

}

**public** Object taste() {

// **TODO** Auto-generated method stub

**return** name;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

}

==============================

Then apple.java,mango.java & orange.java

(Apple.java)

**package** FruitInheritance;

**public** **class** Apple **extends** Fruit {

**public** Apple(String name) {

**super**(name);

}

**public** String taste() {

**return** "Fruit Apple Name is " + **super**.getName() + " ,which is Sweet and Sour in taste";

}

}

**(Mango.java)**

**package** FruitInheritance;

**public** **class** Mango **extends** Fruit {

**public** Mango(String name) {

**super**(name);

}

**public** String taste() {

**return** "Fruit Mango Name is " + **super**.getName() + " ,which is Sweet in taste";

}

}

====================================

**(Orange.java)**

**package** FruitInheritance;

**public** **class** Orange **extends** Fruit {

**public** Orange(String name) {

**super**(name);

}

**public** String taste() {

**return** "Fruit Orange Name is " + **super**.getName() + " ,which is Sour in taste";

}

}

==================================================================

**(TestFruit.java)**

**package** FruitInheritance;

**import** java.util.Scanner;

**public** **class** TestFruit {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("WELCOME TO FRUIT BASKET");

System.***out***.println("Enter the number of Fruits");

Fruit[] quantity = **new** Fruit[sc.nextInt()];

**boolean** exit = **false**;

**int** counter = 0;

**while** (!exit) {

System.***out***.println("1 for apple");

System.***out***.println("2 for mango");

System.***out***.println("3 for orange");

System.***out***.println("4 for display all the fruits from basket");

System.***out***.println("10 for exit");

System.***out***.println("Enter your choice");

**switch** (sc.nextInt()) {

**case** 1:

**if** (counter < quantity.length) {

System.***out***.println("enter type of Apple");

quantity[counter++] = **new** Apple(sc.next());//up casting

} **else** {

System.***out***.println("basket is full!");

}

**break**;

**case** 2:

**if** (counter < quantity.length) {

System.***out***.println("enter type of Mango ");

quantity[counter++] = **new** Mango(sc.next());//up casting

} **else** {

System.***out***.println("basket is full!");

}

**break**;

**case** 3:

**if** (counter < quantity.length) {

System.***out***.println("enter type of Orange");

quantity[counter++] = **new** Orange(sc.next());//up casting

} **else** {

System.***out***.println("basket is full");

}

**break**;

**case** 4:

System.***out***.println("BASKET DETAILS:");

System.***out***.println("YOU ADDED BELOW FRUITS IN TYOUR BASKET:");

System.***out***.println();

**for** (Fruit f : quantity) {

**if** (f != **null**) {

System.***out***.println(f.taste());

}

}

**break**;

**case** 10:

exit = **true**;

System.***out***.println("Thank You !");

**break**;

**default**:

System.***out***.println("You have entered wrong choice");

**break**;

}

}

sc.close();

}

}

=====================================================================

OUTPUT:

WELCOME TO FRUIT BASKET

Enter the number of Fruits

3

1 for apple

2 for mango

3 for orange

4 for display all the fruits from basket

10 for exit

Enter your choice

1

enter type of Apple

appl1

1 for apple

2 for mango

3 for orange

4 for display all the fruits from basket

10 for exit

Enter your choice

2

enter type of Mango

mango1

1 for apple

2 for mango

3 for orange

4 for display all the fruits from basket

10 for exit

Enter your choice

3

enter type of Orange

orange1

1 for apple

2 for mango

3 for orange

4 for display all the fruits from basket

10 for exit

Enter your choice

1

basket is full!

1 for apple

2 for mango

3 for orange

4 for display all the fruits from basket

10 for exit

Enter your choice

4

BASKET DETAILS:

YOU ADDED BELOW FRUITS IN TYOUR BASKET:

Fruit Apple Name is appl1 ,which is Sweet and Sour in taste

Fruit Mango Name is mango1 ,which is Sweet in taste

Fruit Orange Name is orange1 ,which is Sour in taste

===============================================================================