**package** composition;

**public** **class** Product {

**private** String name;

**private** **double** price;

**public** Product(String name, **double** price){

**this**.name=name;

**this**.price=price;

}

**public** String getName() {

**return** name;

}

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

**this**.name = name;

}

**public** **double** getPrice() {

**return** price;

}

**public** **void** setPrice(**double** price) {

**this**.price = price;

}

**public** **void** display(){

System.*out*.println(" Product name: " + name + " price : "+ price);

}

}

//////////////////////////////////

**package** composition;

**public** **class** Store1 {

**private** String name;

**private** **double** rent;

**private** Product []arrProducts;

**private** **int** currentSize;

**public** Store1 (String name, **int** rent, **int** size) {

**this**.name=name;

**this**.rent=rent;

arrProducts = **new** Product [size];

currentSize=0;

}

**public** Store1 (Store1 s)

{

**this**.name=s.name;

**this**.rent = s.rent;

**this**.arrProducts= **new** Product [s.arrProducts.length];

currentSize= s.currentSize;

**for**(**int** i =0; i<s.currentSize;i++)

{

arrProducts[i]=**new** Product(s.arrProducts[i].getName(), s.arrProducts[i].getPrice());

}

}

**public** **double** getRent(){

**double** annualRent= rent\*12;

**return** annualRent;

}

**public** **boolean** addProduct( Product p){

**if** (currentSize<arrProducts.length){

arrProducts [currentSize++] = p;

**return** **true**;

}

**return** **false**;

}

**public** **void** displayAllProducts(){

System.*out*.println("Store Name of : " + name);

**for**(**int** i = 0; i < currentSize; i++){

arrProducts[i].display();

}

System.*out*.println("Monthly rent : " + rent + " rent per year: " + getRent());

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

System.*out*.println();

}

**public** **void** displayProduct( **double** p){

**for** (**int** i=0; i < currentSize; i++){

**if** (arrProducts[i].getPrice()==p){

System.*out*.println(name);

}

}

}

}

/////////////////////////////////////////////

**package** composition;

**public** **class** Mall {

**private** String name;

**private** Store1 [] arrStores;

**private** **int** currentSize;

**public** Mall(String name, **int** size) {

**this**.name=name;

arrStores = **new** Store1[size];

currentSize = 0;

}

**public** **boolean** addStore (Store1 s){

**if** (currentSize < arrStores.length)

{

arrStores[currentSize++] =**new** Store1 (s);

**return** **true**;

}

**return** **false**;

}

**public** **void** displayAll(){

**for** (**int** i = 0; i < currentSize; i++){

arrStores[i].displayAllProducts();

}

System.*out*.println("Mall Name: " + name);

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

}

**public** **double** maxRent ( ){

**double** max=arrStores[0].getRent();

**for** (**int** i =0; i < currentSize;i++){

**if**(arrStores[i].getRent() > max){

max = arrStores[i].getRent();

}

}

System.*out*.println("Max Rent per year : " + max );

**return** max;

}

}

///////////////////////////////////

**package** composition;

**public** **class** Application {

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

Store1 S1 = **new** Store1 ("Aldo", 2, 5);

Product P1 = **new** Product ("Boot", 250);

S1.addProduct(P1);

Product P2 = **new** Product ("Slipper", 150);

S1.addProduct(P2);

Store1 S2 = **new** Store1 ("Adidas", 1,5);

Product P3 = **new** Product ("T-shirt", 150);

Product P4 = **new** Product ("Hat", 50);

Product P5 = **new** Product ("Basketball", 350);

S2.addProduct(P3);

S2.addProduct(P4);

S2.addProduct(P5);

Mall M= **new** Mall("Panorama",15);

M.addStore(S1);

M.addStore(S2);

M.displayAll();

M.maxRent();

}

}