JAVA Worksheet 5

20pt05

1) abstract class Question {  
 private String myText;  
 Question(String myText){  
 this.myText=myText;  
 }  
  
 public String getText(){  
 return myText;  
 }  
  
 abstract String getQuestion();  
 abstract String getAnswer();  
 abstract boolean checkAnswer(String answer);  
  
  
}  
  
class ShortAnswerQuestion extends Question{  
  
 String myAnswer;  
  
 ShortAnswerQuestion(String text) {  
 super(text);  
 }  
  
  
 @Override  
 String getQuestion() {  
 return super.getText();  
  
 }  
  
 @Override  
 String getAnswer() {  
 return myAnswer;  
 }  
  
 @Override  
 boolean checkAnswer(String answer) {  
 if(getAnswer().equalsIgnoreCase(answer)){  
 return true;  
 }  
 return false;  
 }  
}  
  
class FillInBlankQuestion extends Question{  
  
 private String myAnswer;  
 FillInBlankQuestion(String myText,String myAnswer) {  
 super(myText);  
 this.myAnswer=myAnswer;  
 }  
  
 @Override  
 String getQuestion() {  
 return super.getText()+"\nFill in the blank.";  
  
 }  
  
 @Override  
 String getAnswer() {  
 return myAnswer;  
 }  
  
 @Override  
 boolean checkAnswer(String answer) {  
 if(getAnswer().equalsIgnoreCase(answer)){  
 return true;  
 }  
 return false;  
 }  
}  
  
class TrueFalseQuestion extends Question{  
 boolean myAnswer;  
  
  
 TrueFalseQuestion(String myText,boolean myAnswer) {  
 super(myText);  
 this.myAnswer=myAnswer;  
 }  
  
 @Override  
 String getQuestion() {  
 return super.getText()+"\nIs this statement true or false?";  
 }  
  
 @Override  
 String getAnswer() {  
 return String.*valueOf*(myAnswer);  
 }  
  
 @Override  
 boolean checkAnswer(String answer) {  
 if(getAnswer().equalsIgnoreCase(answer)){  
 return true;  
 }  
 return false;  
 }

2)

|  |  |  |
| --- | --- | --- |
|  | public class PurchaseItem {  private String name;  private double unitPrice;  PurchaseItem(String name,double unitPrice){  this.name=name;  this.unitPrice=unitPrice;  }   PurchaseItem(){  this("no name",0.0);  }   public String getName() {  return name;  }   public void setName(String name) {  this.name = name;  }   public double getUnitPrice() {  return unitPrice;  }   public void setUnitPrice(double unitPrice) {  this.unitPrice = unitPrice;  }   @Override  public String toString() {  return name + " @ " + unitPrice ;  } }  class WeightItem extends PurchaseItem{  private double weight;  WeightItem(String name,double unitPrice,double weight){  super(name,unitPrice);  this.weight=weight;  }   double getPrice(){  return super.getUnitPrice()\*weight;  }   @Override  public String toString() {  return super.toString()+" "+weight+" Kg"+" "+getPrice()+" SR";  } }  class CountedItem extends PurchaseItem{  private int quantity;  CountedItem(String name,double unitPrice,int quantity){  super(name,unitPrice);  this.quantity=quantity;  }   double getPrice(){  return super.getUnitPrice()\*quantity;  }   @Override  public String toString() {  return super.toString()+" "+quantity+" units"+" "+getPrice()+" SR";  } }  public class SuperMarket {  public static void main(String[] argc) {  WeightItem w1=new WeightItem("Banana",3.00,1.37);  System.*out*.println(w1.getPrice());  System.*out*.println(w1.toString());  CountedItem c1=new CountedItem("Pens",4.5,10);  System.*out*.println(c1.getPrice());  System.*out*.println(c1.toString());    } } |  |

3) interface Instrument {  
 void play();  
 String what();  
 void adjust();  
}  
  
class Wind implements Instrument{  
  
 @Override  
 public void play() {  
  
 }  
  
 @Override  
 public String what() {  
 return null;  
 }  
  
 @Override  
 public void adjust() {  
  
 }  
}  
  
class Percussion implements Instrument{  
  
 @Override  
 public void play() {  
  
 }  
  
 @Override  
 public String what() {  
 return null;  
 }  
  
 @Override  
 public void adjust() {  
  
 }  
}  
  
class Stringed implements Instrument{  
 @Override  
 public void play() {  
  
 }  
  
 @Override  
 public String what() {  
 return null;  
 }  
  
 @Override  
 public void adjust() {  
  
 }  
}  
  
class Woodwind extends Wind{  
 public void play() {  
  
 }  
  
 public String what(){  
 return null;  
 }  
  
}  
  
class Brass extends Wind{  
 public void play(){  
  
 }  
  
 public void adjust(){  
  
 }  
}