# Directions

1. Complete the following programs. Pages 321, Question5, 10, 11, 13, 16
2. Screenshot the running programs. Include enough output to show the program works in it’s entirety.
3. Submit screenshots/copies of the code.
   1. Partial credit can be had if you made a valiant effort
4. Submit to BrightSpace.

Part 1: Complete Chapter 9 Programming Exercises starting on page 321; provide a snippet of the code and of the output screen when creating a main method:

**Question 5:**

1. public class SalesPerson {  
    private int idNum;  
    private double sales;  
     
    public SalesPerson(int idNum, double sales)  
    {  
    this.idNum = idNum;  
    this.sales = sales;  
    }  
     
    public SalesPerson()  
    {  
    this.idNum = 0000;  
    this.sales = 0;  
    }  
     
    public double getSales() {  
    return sales;  
    }  
     
    public void setSales(double sales) {  
    this.sales = sales;  
    }  
     
    public int getIdNum() {  
    return idNum;  
    }  
     
    public void setIdNum(int idNum) {  
    this.idNum = idNum;  
    }  
    public String toString(){  
    return ("ID Num:" + idNum+ " Sales: "+ sales);  
    }
2. import java.util.Arrays;  
     
   public class DemoSalesPerson {  
     
    public static void main(String[] args) {  
    SalesPerson[] people = new SalesPerson[10];  
    int startId = 111;  
    double startSale = 25000;  
    for (int i = 0; i < people.length; i++) {  
    SalesPerson person = new SalesPerson();  
    person.setIdNum(startId);  
    person.setSales(startSale);  
    people[i] = person;  
    System.*out*.println(person.toString());  
    startId++;  
    startSale += 5000;  
    }  
     
    System.*out*.println(Arrays.*toString*(people));  
    }  
   }

Text

Description automatically generated

import java.util.\*;  
public class SalesPersonSort {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 SalesPerson[] people = new SalesPerson[7];  
 int id;  
 double sales;  
  
 for(int x=0;x<people.length;x++)  
 {  
 SalesPerson s = new SalesPerson();  
 System.*out*.println("Enter the Id Number");  
 id = sc.nextInt();  
 s.setIdNum(id);  
 System.*out*.println("Enter sales amount");  
 sales = sc.nextDouble();  
 s.setSales(sales);  
 people[x]=s;  
 System.*out*.println(s.toString());  
 }  
  
 System.*out*.println("Would you like to sort by ID number or Sales Amount ----> 1(ID) or 2(Sales Amount)");  
 int answer = sc.nextInt();  
  
 if(answer==1)  
 {  
 for (int i = 0; i < people.length - 1; i++) {  
 for (int j = 1; j < people.length - i; j++) {  
 if (people[j - 1].getIdNum() > people[j].getIdNum()) {  
 int temp = people[j - 1].getIdNum();  
 people[j - 1].setIdNum(people[j].getIdNum());  
 people[j].setIdNum(temp);  
 }  
 }  
 }  
 System.*out*.println(Arrays.*toString*(people));  
 }  
 else if(answer==2)  
 {  
 for (int i = 0; i < people.length - 1; i++) {  
 for (int j = 1; j < people.length - i; j++) {  
 if (people[j - 1].getSales() > people[j].getSales()) {  
 double temp = people[j - 1].getSales();  
 people[j - 1].setSales(people[j].getSales());  
 people[j].setSales(temp);  
 }  
 }  
 }  
 System.*out*.println(Arrays.*toString*(people));  
 }  
 else  
 {  
 System.*out*.println("Error");  
 }  
  
 }  
}

Text

Description automatically generated

**Question 10**:

public class DrugTests2 {  
 public static void main(String[] args) {  
 int[] randomTest = new int[52];  
 int test;  
  
 for(int x=0;x<randomTest.length;x++)  
 {  
 test= 1+ (int)(Math.*random*()\*30);  
 randomTest[x]= test;  
  
 System.*out*.print("Employee: "+ randomTest[x] + " ");  
  
 if((x+1)%4==0)  
 {  
 System.*out*.println();  
 }  
 }  
  
 int count =0;  
  
 for(int y =0;y<30;y++)  
 {  
 count =0;  
  
 for(int i =0;i<30;i++)  
 {  
 if(randomTest[i]==(y+1))  
 {  
 count++;  
 }  
 }  
  
 if(count==0)  
 {  
 System.*out*.println("Employee "+ (y+1) + " is not in list");  
 }  
 else  
 {  
 System.*out*.println("Employee "+ (y+1) + " was tested " + count + " times");  
 }  
  
 }  
  
 }  
}

Text

Description automatically generated

import java.util.Arrays;  
  
public class DrugTest3 {  
 public static void main(String[] args) {  
 int[] empl = new int[52];  
 int test;  
  
 empl[0]= 1+ (int)(Math.*random*()\*30);  
  
 for(int x=1;x<empl.length;x++)  
 {  
 test= 1+ (int)(Math.*random*()\*30);  
  
 if(test==empl[x-1])  
 {  
 System.*out*.println("Repeat from last week new number selected");  
 test++;  
 }  
  
 empl[x]=test;  
 }  
  
 System.*out*.println(Arrays.*toString*(empl));  
 }  
}

Text

Description automatically generated

import java.util.\*;  
  
public class StringSort {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 String[] fifteen = new String[15];  
 String input;  
  
 for(int x=0; x<fifteen.length;x++)  
 {  
 System.*out*.println("Enter a string, enter \"break\" if you would like to stop entering values");  
 input = sc.nextLine();  
  
 if(input.equals("break"))  
 break;  
  
 fifteen[x]=input;  
 }  
  
 for(int x=0;x<fifteen.length;x++)  
 {  
 if(fifteen[x+1].compareTo(fifteen[x])>0) {  
 String temp = fifteen[x];  
 fifteen[x] = fifteen[x+1];  
 fifteen[x+1] = temp;  
 }  
 }  
  
 System.*out*.println(Arrays.*toString*(fifteen));  
  
 sc.close();  
  
 }  
}

A picture containing calendar

Description automatically generated

public class Recording {  
  
 private String title;  
 private String artist;  
 private int seconds;  
  
  
 public Recording(String title, String artist, int seconds) {  
 this.title = title;  
 this.artist = artist;  
 this.seconds = seconds;  
 }  
  
 public Recording()  
 {  
 this.title = "";  
 this.artist="";  
 this.seconds = 0;  
 }  
  
 public String getTitle()  
 {  
 return this.title;  
 }  
  
 public String getArtist()  
 {  
 return this.artist;  
 }  
  
 public int getSeconds()  
 {  
 return this.seconds;  
 }  
 public void setTitle(String title)  
 {  
 this.title = title;  
 }  
 public void setArtist(String artist)  
 {  
 this.artist = artist;  
 }  
 public void setSeconds(int seconds)  
 {  
 this.seconds = seconds;  
 }  
  
 public String toString()  
 {  
 return "Title: "+ this.title + " Artist: "+ this.artist + " Seconds:"+ this.seconds;  
 }  
  
  
}

import java.util.\*;  
  
public class RecordingSort {  
 public static void main(String[] args) {  
 String title;  
 String artist;  
 int seconds;  
 Scanner sc = new Scanner(System.*in*);  
 Recording[] recordings = new Recording[5];  
  
 for(int x=0;x<5;x++)  
 {  
 System.*out*.println("Enter the title of the song");  
 title = sc.next();  
  
 System.*out*.println("Enter the artist name");  
 artist = sc.next();  
  
 System.*out*.println("Enter the seconds in the song");  
 seconds =sc.nextInt();  
  
 Recording r = new Recording(title,artist,seconds);  
  
 recordings[x]=r;  
 }  
  
 System.*out*.println("How would you like to sort the list of songs 1)Title 2)Artist 3)Seconds in Song");  
 int answer = sc.nextInt();  
  
 for(int i =0;i<recordings.length-1;i++)  
 {  
 for(int j =0;j<recordings.length-1;j++)  
 {  
 int c= j+1;  
 if (answer == 1)  
 {  
 if(recordings[j].getTitle().compareTo(recordings[c].getTitle())>0) {  
 Recording temporary = recordings[j];  
 recordings[j] = recordings[c];  
 recordings[c] = temporary;  
 }  
 }  
 else if (answer == 2) {  
 if(recordings[j].getArtist().compareTo(recordings[c].getArtist())>0) {  
 Recording temporary = recordings[j];  
 recordings[j] = recordings[c];  
 recordings[c] = temporary;  
 }  
  
 }  
 else if (answer == 3) {  
 if(recordings[j].getSeconds()>recordings[c].getSeconds()) {  
 Recording temporary = recordings[j];  
 recordings[j] = recordings[c];  
 recordings[c] = temporary;  
 }  
  
 }  
 }  
 }  
  
  
 System.*out*.println(Arrays.*toString*(recordings));  
  
  
 }  
}

Text

Description automatically generated

import java.util.\*;  
  
public class Planets {  
  
 public enum planetLength {  
 *MERCURY*,*VENUS*,*EARTH*,*MARS*,*JUPITER*,*SATURN*,*URANUS*,*NEPTUNE* }  
  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
  
 System.*out*.println("Enter a planet name");  
 String answer = sc.next().toUpperCase();  
  
 planetLength e = planetLength.*valueOf*(answer);  
 System.*out*.println(e.ordinal()+1);  
 }  
}

Text

Description automatically generated