1:

public class Area

{

double calculateArea(double radius)

{

return 22.0/7 \* radius \* radius;

}

double calculateArea(double length, double width)

{

return length \* width;

}

double calculateArea(double height, double length, double width)

{

return height \* length \* width;

}

}

public class Solution1

{

public static void main(String args[])

{

Area obj = new Area();

System.out.println(obj.calculateArea(14.0));

}

}

public class Solution2

{

public static void main(String args[])

{

Area obj = new Area();

System.out.println(obj.calculateArea(10.0,12.0));

}

}

import java.util.\*;

public class Solution3

{

public static void main(String args[])

{

Area obj = new Area();

Scanner sc = new Scanner(System.in);

System.out.println("Enter height");

double height = sc.nextDouble();

System.out.println("Enter length");

double length = sc.nextDouble();

System.out.println("Enter width");

double width = sc.nextDouble();

System.out.println(obj.calculateArea(height,length,width));

}

}

2.

public class Employee

{

int id;

String name;

Employee(int id,String name)

{

this.id=id;

this.name=name;

}

}

import java.util.\*;

public class Solution

{

public static void SwapName(Employee e1,Employee e2)

{

Employee e3 = new Employee(3,"ccc");

e3.id = e1.id;e3.name = e1.name;

e1.id = e2.id;e1.name = e2.name;

e2.id = e3.id;e2.name = e3.name;

System.out.println(e1.name +" " + e2.name);

}

public static void main(String args[])

{

Employee e1 = new Employee(1,"aaa");

Employee e2 = new Employee(2,"bbb");

SwapName(e1,e2);

}

}

3.

public class Customer

{

int id;

String name;

String email;

Customer(int id,String name,String email)

{

this.id=id;

this.name=name;

this.email=email;

}

}

import java.util.\*;

public class Solution

{

public static void checkEmail(Customer e1,Customer e2,String domain)

{

String e1\_raw = e1.email.substring(e1.email.length()-9,e1.email.length()-4);

String e2\_raw = e2.email.substring(e2.email.length()-9,e2.email.length()-4);

if ((e1\_raw.equals(domain)) && (e2\_raw.equals(domain)))

{

System.out.println("true");

}

else

{

System.out.println("false");

}

}

public static void main(String args[])

{

Customer e1 = new Customer(1,"aaa","abc@gmail.com");

Customer e2 = new Customer(2,"bbb","xyz@gmail.com");

checkEmail(e1,e2,"gmail");

}

}

PART \_B

4. Conditional Operations - Max Age Employee - Hands-on

public class Employee

{

int id;

String name;

double age;

Employee(int id,String name,double age)

{

this.id=id;

this.name=name;

this.age=age;

}

}

public class Solution

{

public static Employee getEmployeeWithMaxAge(Employee e1,Employee e2,Employee e3)

{

if(e1.age > e2.age)

{

if(e1.age >e3.age)

{

return e1;

}

else

{

return e3;

}

}

else

{

if(e2.age > e3.age)

{

return e2;

}

else

{

return e3;

}

}

}

public static void main(String args[])

{

Employee e1 = new Employee(1,"aaa",22.0);

Employee e2 = new Employee(2,"bbb",33.0);

Employee e3 = new Employee(3,"ccc",44.0);

Employee e4 = new Employee(0,"XXX",00.0);

e4 = getEmployeeWithMaxAge(e1,e2,e3);

System.out.println(e4.id + " "+ e4.name+ " " +e4.age);

}

}

5. Conditional Operations - Students with same age and city - Hands-on

public class Student

{

String name;

double age;

String city;

Student(String name,double age,String city)

{

this.city=city;

this.name=name;

this.age=age;

}

}

public class Solution

{

public static int studentCountWithSameCityAndAge(Student e1,Student e2,Student e3)

{

if((e1.age == e2.age) && (e1.age == e3.age))

{

if((e1.city.equals(e2.city)) && (e1.city.equals(e3.city)))

{

return 3;

}

}

if(e1.age == e2.age)

{

if(e1.city.equals(e2.city))

{

return 2;

}

}

if(e1.age == e3.age)

{

if(e1.city.equals(e3.city))

{

return 2;

}

}

if(e2.age == e3.age)

{

if(e2.city.equals(e3.city))

{

return 2;

}

}

return 0;

}

public static void main(String args[])

{

Student e1 = new Student("aaa",15,"delhi");

Student e2 = new Student("bbb",16,"mumbai");

Student e3 = new Student("ccc",15,"mumbai");

int n = studentCountWithSameCityAndAge(e1,e2,e3);

System.out.println(n);

}

}

6. Arrays and Iterations - Sort odd values - Hands-on

public class Solution

{

public static int[] sortOddValues(int array[])

{

int temp;

for (int i = 1; i < array.length; i++) {

for (int j = i; j > 0; j--) {

if (array[j] < array [j - 1]) {

temp = array[j];

array[j] = array[j - 1];

array[j - 1] = temp;

}

}

}

return array;

}

public static void main(String args[])

{

int arr1[] = new int[5];

int arr[] = {111,77,88,44,32,11,13,25,44};

int k=0;

for (int i=0; i<arr.length ; i++)

{

if(arr[i] % 2 != 0)

{

arr1[k] = arr[i];

k++;

}

}

arr1 = sortOddValues(arr1);

for (int i=0; i<arr1.length ; i++)

{

System.out.print(arr1[i]+" ");

}

}

}

7. Arrays and Iterations - Swap values in array - Hands-on

public class Solution

{

public static int[] swapValues(int array[])

{

int tmp[] = new int[9];

for (int i = 0; i < array.length / 2; i++)

{

int n= 2\*i;

tmp[n] = array[n+1];

tmp[n+1] = array[n];

}

tmp[array.length -1] = array[array.length -1];

return tmp;

}

public static void main(String args[])

{

int arr1[] = new int[9];

int arr[] = {111,77,88,44,32,11,13,25,44};

arr1 = swapValues(arr);

for (int i=0; i<arr1.length ; i++)

{

System.out.print(arr1[i]+" ");

}

}

}

8. HTML5 and CSS3 - Styling the div and span - Hands-on

<html>

<head>

<title>Question1</title>

<body>

<!-- Design & Develop your code here -->

<div id="head" style="background-color:red;color:white;width:600px;height:200px">

<center><h1>My Application</h1></center>

</div>

<div style="width:600px;height:400px">

<span id="span1" style="background-color:#00FF00;width:300px;height:300px">

"Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

</span>

<span id="span2" style="background-color:#0000FF;width:300px;height:300px">

"Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

</span>

</div>

</body>

</html>

9. HTML5 and CSS3 - Navigation menu - Hands-on

<html>

<head>

<title>Question2</title>

<body>

<!-- Design & Develop your code here -->

<h1>Inventory Management System</h1>

<hr id="rule1">

<p id="menu" align="center">

<a href="page1.html" id="menu1">Registration</a><br/>

<a href="page2.html" id="menu2">List</a><br/>

<a href="page3.html" id="menu3">Search</a><br/>

<hr id="rule2">

<h4>(&copy;) My App 2018-19.</h4>

</body>

</html>

10. HTML5 and CSS3 - Customer Listing - Hands-on

<html>

<head>

<title>Question3</title>

<style>

th, td {

border-bottom: 1px solid #ddd;

}

</style>

<body>

<!-- Design & Develop your code here -->

<h2>Customer Listing</h2>

<table id="custList" style="width:80%" align="center">

<tr style="background-color:#42aaf4">

<th>Customer Id</th>

<th>Name</th>

<th>Gender</th>

<th>City</th>

</tr>

<tr>

<td>100001</td>

<td>Akshay Kumar</td>

<td>Male</td>

<td>Chennai</td>

</tr>

<tr>

<td>100002</td>

<td>Shyama P</td>

<td>Female</td>

<td>Trivandrum</td>

</tr>

<tr>

<td>100003</td>

<td>Nalini Kumari</td>

<td>Female</td>

<td>Bangalore</td>

</tr>

<tr>

<td>100004</td>

<td>Raj Shyam</td>

<td>Male</td>

<td>Chennai</td>

</tr>

<tr>

<td>100005</td>

<td>Sundar G</td>

<td>Male</td>

<td>Mangalore</td>

</tr>

<tr>

<td>100006</td>

<td>Kishore P</td>

<td>Male</td>

<td>Calicut</td>

</tr>

</table>

</body>

</html>

11. HTML5 and CSS3 - Form for adding - Hands-on

<html>

<head>

<title>Question4</title>

<body>

<!-- Design & Develop your code here -->

<h2>Add Book</h2>

<form name="addBook">

Book Id: <input type="text" name="BookId">

Book name: <input type="text" name="bookName">

Category:

<select id="category">

<option>Action</option>

<option>Drama</option>

<option>Comedy</option>

<option>Childrens</option>

</select>

<input type="radio" value="Available" name="availability">

<input type="radio" value=Not Available" name="availability">

<input type="reset" name="cancle" value="Cancel" style="background-color:#2345E4">

<button name="add" value="Add" style="background-color:#2345E4">

</form>

</body>

</html>

12. HTML5 and CSS3 - Validation of Customer Registration - Hands-on

<html>

<head>

<title>Question5</title>

<body>

<!-- Design & Develop your code here -->

<h1>Customer Registration</h1>

<form name="registerCustomer" id="registerCustomer">

Customer Id: <input type="text" name="customerId" required>

Customer Name: <input type="text" name="customerName" maxlength="6">

City:

<select id="city">

<option>Chennai</option>

<option>Mumbai</option>

<option>Delhi</option>

<option>Trivandrum</option>

</select>

<input type="radio" value="Male" name="gender">

<input type="radio" value=Female" name="gender">

<input type="reset" name="cancle" value="Cancel" style="background-color:#2345E4">

<button name="create" value="Create" style="background-color:#2345E4">

</form>

</body>

</html>

13. HTML and CSS3 - My Cart Design - Hands-on

<html>

<head>

<title>Question6</title>

<style>

th, td {

border-bottom: 1px solid #ddd;

}

</style>

</head>

<body>

<!-- Design & Develop your code here -->

<div id="header">

<h1>Uni Sales</h1>

</div>

<div id="body">

<h2>My Cart</h2>

<table id="myCarts" style="width:80%" align="center">

<tr style="background-color:#45E078">

<th>Product Name</th>

<th>Description</th>

<th>Unit Price</th>

<th>Quantity</th>

<th>Total</th>

</tr>

<tr>

<td>Surf Excel</td>

<td>Washing Powder</td>

<td>85.00</td>

<td>1</td>

<td>85.00</td>

</tr>

<tr>

<td>Harpic</td>

<td>Toilet Cleaner</td>

<td>48.00</td>

<td>2</td>

<td>96.00</td>

</tr>

</table>

<button id="continue" value="Continue" style="background-color:#FF0000">

<button id="checkout" value="Checkout" style="background-color:#FF0000">

</div>

<div id="footer">

<h4>(&copy) All rights reserved to Uni Sales 2018-19.</h4>

</div>

</body>

</html>

14. Unix - Average of marks - Hands - on

awk 'BEGIN{FS="#";OFS="#"}{print $1,$2,$3,$4,$5,($4+$5) / 2 }' ~/unix\_subjectaverage/Input.txt | awk 'BEGIN{FS="#";OFS="|"} (($4 +$5)/2) > 90 {print $1,$2,$3,$4,$5,($4+$5) / 2 }' ~/unix\_subjectaverage/Input.txt

15. Unix - Skill Upgrade - Hands -on

sed -i 's/C++/PYTHON/I;s/CPP/PYTHON/I;s/ORACLE/MYSQL/I;s/DB2/MYSQL/I;s/DOTNET/PYTHON/I;s/JAVA/PYTHON/I' ~/unix\_skillupgradeproject/BFSSkill.txt ~/unix\_skillupgradeproject/telecommSkill.txt

16.

public class Point

{

double x,y;

Point(double x,double y)

{

this.x = x;

this.y = y;

}

}

import java.lang.Math;

public class Solution

{

public static void findSequentialDistance(Point array[])

{

double raw\_dist,dist=0.0;

for (int i = 1; i < array.length; i++)

{

raw\_dist = (array[i].x - array[i-1].x) \* (array[i].x - array[i-1].x) + (array[i].y - array[i-1].y) \* (array[i].y - array[i-1].y);

dist = dist + Math.sqrt(raw\_dist);

}

System.out.println(dist);

}

public static void main(String args[])

{

Point e1 = new Point(-3,-4);

Point e2 = new Point(0,0);

Point e3 = new Point(4,3);

Point e4 = new Point(16,-2);

Point arr[] = {e1,e2,e3,e4};

findSequentialDistance(arr);

}

}

17.

public class Employee

{

int id;

String name;

double age;

Employee(int id,String name,double age)

{

this.id=id;

this.name=name;

this.age=age;

}

}

import java.lang.Math;

public class Solution

{

public static Employee employeeWithSecondLowestAge(Employee arr[])

{

double first, second, arr\_size = arr.length;

Employee X = new Employee(0,"xxx",0.0);

first = second = Integer.MAX\_VALUE;

for (int i = 0; i < arr\_size ; i ++)

{

if (arr[i].age < first)

{

second = first;

first = arr[i].age;

}

else if (arr[i].age < second && arr[i].age != first)

second = arr[i].age;

}

X.age = second;

return X;

}

public static void main(String args[])

{

Employee e1 = new Employee(1,"aaa",22.0);

Employee e2 = new Employee(2,"bbb",33.0);

Employee e3 = new Employee(3,"ccc",55.0);

Employee e4 = new Employee(4,"ddd",44.0);

Employee arr[] = {e1,e2,e3,e4};

Employee X = new Employee(0,"xxx",0.0);

X = employeeWithSecondLowestAge(arr);

for(int i=0 ; i < arr.length ; i++)

{

if(arr[i].age == X.age)

{

System.out.println(arr[i].id+" "+arr[i].name+" "+arr[i].age);

}

}

}

}