

| | |
|------------------|-------------------------------------|
| Status | Finished |
| Started | Monday, 30 September 2024, 11:29 PM |
| Completed | Monday, 30 September 2024, 11:42 PM |
| Duration | 13 mins 38 secs |

Question 1

Correct

Marked out of 5.00

Write a program to find whether the given input number is Odd.

If the given number is odd, the program should return 2 else It should return 1.

Note: The number passed to the program can either be negative. positive or zero. Zero should NOT be treated as Odd.

For example:

| Input | Result |
|-------|--------|
| 123 | 2 |
| 456 | 1 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class odd
3 {
4     public static void main(String[] args){
5         Scanner sc=new Scanner(System.in);
6         int a=sc.nextInt();
7         if(a%2==0)
8         {
9             System.out.println(1);
10        }
11        else{
12            System.out.println(2);
13        }
14    }
15 }
```

| | Input | Expected | Got | |
|---|-------|----------|-----|---|
| ✓ | 123 | 2 | 2 | ✓ |
| ✓ | 456 | 1 | 1 | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

Write a program that returns the last digit of the given number. Last digit is being referred to the least significant digit i.e. the digit in the ones (units) place in the given number.

The last digit should be returned as a positive number.

For example,

if the given number is 197, the last digit is 7

if the given number is -197, the last digit is 7

For example:

| Input | Result |
|-------|--------|
| 197 | 7 |
| -197 | 7 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class last{
3     public static void main(String[] args)
4     {
5         Scanner sc=new Scanner(System.in);
6         int a=sc.nextInt();
7
8         if(a<0){
9             a=-1*a;
10        }
11        System.out.println(a%10);
12    }
13 }
```

| | Input | Expected | Got | |
|---|-------|----------|-----|---|
| ✓ | 197 | 7 | 7 | ✓ |
| ✓ | -197 | 7 | 7 | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

Rohit wants to add the last digits of two given numbers.

For example,

If the given numbers are 267 and 154, the output should be 11.

Below is the explanation:

Last digit of the 267 is 7

Last digit of the 154 is 4

Sum of 7 and 4 = 11

Write a program to help Rohit achieve this for any given two numbers.

Note: Tle sign of the input numbers should be ignored.

i.e.

if the input numbers are 267 and 154, the sum of last two digits should be 11

if the input numbers are 267 and -154, the slim of last two digits should be 11

if the input numbers are -267 and 154, the sum of last two digits should be 11

if the input numbers are -267 and -154, the sum of last two digits should be 11

For example:

| Input | Result |
|--------------|--------|
| 267 154 | 11 |
| 267 -154 | 11 |
| -267 154 | 11 |
| -267 -154 | 11 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class sums
3 {
4     public static void main(String[] args)
5     {
6         Scanner sc=new Scanner(System.in);
7         int a=sc.nextInt();
8         int b=sc.nextInt();
9         if(a<0)
10        {
11            a=-1*a;
12        }
13        if(b<0)
14        {
15            b=-1*b;
16        }
17        if(b<0)
18        {
19            b=-1*b;
20        }
21    }
22    System.out.println((a%10)+(b%10));
23 }
24 }
```

| | Input | Expected | Got | |
|---|--------------|----------|-----|---|
| ✓ | 267 154 | 11 | 11 | ✓ |
| ✓ | 267 -154 | 11 | 11 | ✓ |
| ✓ | -267 154 | 11 | 11 | ✓ |
| ✓ | -267 -154 | 11 | 11 | ✓ |

Passed all tests! ✓

◀ Lab-01-MCQ

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Is Even? ►

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| | |
|------------------|----------------------------------|
| Status | Finished |
| Started | Tuesday, 1 October 2024, 9:03 AM |
| Completed | Tuesday, 1 October 2024, 8:40 PM |
| Duration | 11 hours 36 mins |

Question 1

Correct

Marked out of 5.00

Write a program that takes as parameter an integer n.

You have to print the number of zeros at the end of the factorial of n.

For example, $3! = 6$. The number of zeros are 0. $5! = 120$. The number of zeros at the end are 1.

Note: $n! < 10^5$

Example Input:

3

Output:

0

Example Input:

60

Output:

14

Example Input:

100

Output:

24

Example Input:

1024

Output:

253

For example:

| Input | Result |
|-------|--------|
| 3 | 0 |
| 60 | 14 |
| 100 | 24 |
| 1024 | 253 |

Answer: (penalty regime: 0 %)

Reset answer

```
1 import java.util.Scanner;
2 public class FactorialTrailingZeros {
3     public static void main(String[] args) {
4         Scanner scanner = new Scanner(System.in);
5         int n = scanner.nextInt();
6         System.out.println(countTrailingZeros(n));
7         scanner.close();
8     }
9     public static int countTrailingZeros(int n) {
10        int count = 0;
11        for (int i = 5; n / i >= 1; i *= 5) {
12            count += n / i;
13        }
14        return count;
15    }
16 }
17 }
```

| | Input | Expected | Got | |
|---|-------|----------|-----|---|
| ✓ | 3 | 0 | 0 | ✓ |
| ✓ | 60 | 14 | 14 | ✓ |
| ✓ | 100 | 24 | 24 | ✓ |
| ✓ | 1024 | 253 | 253 | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

Write a Java program to input a number from user and print it into words using for loop. How to display number in words using loop in Java programming.

Logic to print number in words in Java programming.

Example**Input**

1234

Output

One Two Three Four

Input:

16

Output:

one six

For example:

| Test | Input | Result |
|------|-------|-------------|
| 1 | 45 | Four Five |
| 2 | 13 | One Three |
| 3 | 87 | Eight Seven |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class NumberToWords{
3     private static final String[] units={"","One","Two","Three","Four","Five","Six","Seven","Ei
4     private static final String[] teens={"One","Two","Three","Four","Five","Six","Seven","Eight
5     private static final String[] tens={"","One","Two","Three","Four","Five","Six","Seven","Eig
6     public static void main(String[] args){
7         Scanner scanner=new Scanner(System.in);
8         System.out.print("");
9         int number=scanner.nextInt();
10        printNumberInWords(number);
11    }
12    public static void printNumberInWords(int number){
13        String words="";
14        while(number>0){
15            int digit=number%10;
16            number/=10;
17            if(number>0){
18                if(digit==1){
19                    words=getTeens(number%10) +" "+ words;
20
21                    number/=10;
22
23                }
24                else{
25                    words=getTens(digit) +" "+ words;
26
27                }
28
29            }
30            else
31            {
32                words=getUnits(digit) +" "+ words;
33            }
34        }
35        System.out.println(words.trim());
36    }
37    private static String getUnits(int digit){
38        return units[digit];
39    }
40    private static String getTeens(int digit){
41        return teens[digit];
42    }
}

```

```
43 private static String getTens(int digit){  
44     return tens[digit];  
45 }  
46  
47 }
```

| | Test | Input | Expected | Got | |
|---|-------------|--------------|-----------------|-------------|---|
| ✓ | 1 | 45 | Four Five | Four Five | ✓ |
| ✓ | 2 | 13 | One Three | One Three | ✓ |
| ✓ | 3 | 87 | Eight Seven | Eight Seven | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

You have recently seen a motivational sports movie and want to start exercising regularly. Your coach tells you that it is important to get up early in the morning to exercise. She sets up a schedule for you:

On weekdays (Monday - Friday), you have to get up at 5:00. On weekends (Saturday & Sunday), you can wake up at 6:00. However, if you are on vacation, then you can get up at 7:00 on weekdays and 9:00 on weekends.

Write a program to print the time you should get up.

Input Format

Input containing an integer and a boolean value.

The integer tells you the day it is (1-Sunday, 2-Monday, 3-Tuesday, 4-Wednesday, 5-Thursday, 6-Friday, 7-Saturday). The boolean is true if you are on vacation and false if you're not on vacation.

You have to print the time you should get up.

Example Input:

1 false

Output:

6:00

Example Input:

5 false

Output:

5:00

Example Input:

1 true

Output:

9:00

For example:

| Input | Result |
|---------|--------|
| 1 false | 6:00 |
| 5 false | 5:00 |
| 1 true | 9:00 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class WakeUpTime {
3     public static void main(String[] args) {
4         Scanner scanner = new Scanner(System.in);
5         int day = scanner.nextInt();
6         boolean vacation = scanner.nextBoolean();
7         String wakeUpTime = getWakeUpTime(day, vacation);
8         System.out.println(wakeUpTime);
9         scanner.close();
10    }
11    public static String getWakeUpTime(int day, boolean vacation) {
12        String time;
13        if (vacation) {
14            if (day == 1 || day == 7) {
15                time = "9:00";
16            } else {
17                time = "7:00";
18            }
19        } else {
20            if (day == 1 || day == 7) {
21                time = "6:00";
22            } else {
23                time = "5:00";
24            }
25        }
26    }
}

```

```
24 }  
25 }  
26 }  
27 }  
28 }  
29 }
```

| | Input | Expected | Got | |
|---|--------------|-----------------|------------|---|
| ✓ | 1 false | 6:00 | 6:00 | ✓ |
| ✓ | 5 false | 5:00 | 5:00 | ✓ |
| ✓ | 1 true | 9:00 | 9:00 | ✓ |

Passed all tests! ✓

◀ Lab-02-MCQ

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Lab-03-MCQ ▶

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| | |
|------------------|----------------------------------|
| Status | Finished |
| Started | Tuesday, 1 October 2024, 8:59 PM |
| Completed | Tuesday, 1 October 2024, 9:30 PM |
| Duration | 30 mins 56 secs |

Question 1

Correct

Marked out of 5.00

You are provided with a set of numbers (array of numbers).

You have to generate the sum of specific numbers based on its position in the array set provided to you.

This is explained below:

Example 1:

Let us assume the encoded set of numbers given to you is:

input1:5 and input2: {1, 51, 436, 7860, 41236}

Step 1:

Starting from the 0th index of the array pick up digits as per below:

0th index – pick up the units value of the number (in this case is 1).

1st index - pick up the tens value of the number (in this case it is 5).

2nd index - pick up the hundreds value of the number (in this case it is 4).

3rd index - pick up the thousands value of the number (in this case it is 7).

4th index - pick up the ten thousands value of the number (in this case it is 4).

(Continue this for all the elements of the input array).

The array generated from Step 1 will then be – {1, 5, 4, 7, 4}.

Step 2:

Square each number present in the array generated in Step 1.

{1, 25, 16, 49, 16}

Step 3:

Calculate the sum of all elements of the array generated in Step 2 to get the final result. The result will be = 107.

Note:

- 1) While picking up a number in Step1, if you observe that the number is smaller than the required position then use 0.
- 2) In the given function, input1[] is the array of numbers and input2 represents the number of elements in input1.

Example 2:

input1: 5 and input1: {1, 5, 423, 310, 61540}

Step 1:

Generating the new array based on position, we get the below array:

{1, 0, 4, 0, 6}

In this case, the value in input1 at index 1 and 3 is less than the value required to be picked up based on position, so we use a 0.

Step 2:

{1, 0, 16, 0, 36}

Step 3:

The final result = 53.

For example:

| Input | Result |
|--------------------------|--------|
| 5 1 51 436 7860 41236 | 107 |
| 5 1 5 423 310 61540 | 53 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class SumofDigitPositions{
3     public static void main(String[] args){
4         Scanner scanner=new Scanner(System.in);
5         System.out.print("");

```

```
6
7
8
9 v
10
11
12
13 int[] input1=new int[input2];
14 v
15 System.out.println("");
16 for(int i=0;i<input2;i++){
17     input1[i]=scanner.nextInt();
18
19 }
20
21 int[] digitPositions=new int[input2];
22 for(int i=0;i<input2;i++){
23     int number=input1[i];
24     int digit=(number/(int)Math.pow(10,i))%10;
25     digitPositions[i]=(number<Math.pow(10,i))?0:digit;
26
27 }
```

| | Input | Expected | Got | |
|---|--------------------------|----------|-----|---|
| ✓ | 5 1 51 436 7860 41236 | 107 | 107 | ✓ |
| ✓ | 5 1 5 423 310 61540 | 53 | 53 | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

Given an array of numbers, you are expected to return the sum of the longest sequence of POSITIVE numbers in the array.

If there are NO positive numbers in the array, you are expected to return -1.

In this question's scope, the number 0 should be considered as positive.

Note: If there are more than one group of elements in the array having the longest sequence of POSITIVE numbers, you are expected to return the total sum of all those POSITIVE numbers (see example 3 below).

input1 represents the number of elements in the array.

input2 represents the array of integers.

Example 1:

input1 = 16

input2 = {-12, -16, 12, 18, 18, 14, -4, -12, -13, 32, 34, -5, 66, 78, 78, -79}

Expected output = 62

Explanation:

The input array contains four sequences of POSITIVE numbers, i.e. "12, 18, 18, 14", "12", "32, 34", and "66, 78, 78". The first sequence "12, 18, 18, 14" is the longest of the four as it contains 4 elements. Therefore, the expected output = sum of the longest sequence of POSITIVE numbers = $12 + 18 + 18 + 14 = 63$.

Example 2:

input1 = 11

input2 = {-22, -24, 16, -1, -17, -19, -37, -25, -19, -93, -61}

Expected output = -1

Explanation:

There are NO positive numbers in the input array. Therefore, the expected output for such cases = -1.

Example 3:

input1 = 16

input2 = {-58, 32, 26, 92, -10, -4, 12, 0, 12, -2, 4, 32, -9, -7, 78, -79}

Expected output = 174

Explanation:

The input array contains four sequences of POSITIVE numbers, i.e. "32, 26, 92", "12, 0, 12", "4, 32", and "78". The first and second sequences "32, 26, 92" and "12, 0, 12" are the longest of the four as they contain 4 elements each. Therefore, the expected output = sum of the longest sequence of POSITIVE numbers = $(32 + 26 + 92) + (12 + 0 + 12) = 174$.

For example:

| Input | Result |
|--|--------|
| 16 -12 -16 12 18 18 14 -4 -12 -13 32 34 -5 66 78 78 -79 | 62 |
| 11 -22 -24 -16 -1 -17 -19 -37 -25 -19 -93 -61 | -1 |
| 16 -58 32 26 92 -10 -4 12 0 12 -2 4 32 -9 -7 78 -79 | 174 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class LongestPositiveSequenceSum{
3     public static void main(String[] args){
4         Scanner scanner=new Scanner(System.in);
5         System.out.print("");
6         int input1=scanner.nextInt();
7         int[] input2=new int[input1];
8         System.out.println("");
9         for(int i=0;i<input1;i++){
10             ...
11         }
12     }
13 }
```

```

10
11
12
13     input2[i]=scanner.nextInt();
14
15     }
16     int maxLength=0;
17     int currentLength=0;
18     int currentSum=0;
19     int maxSum=0;
20     for(int num : input2){
21         if(num>=0){
22             currentLength++;
23             currentSum+=num;
24         }
25         else{
26             if(currentLength>maxLength){
27                 maxLength=currentLength;
28                 maxSum=currentSum;
29             }
30             else if(currentLength==maxLength){
31                 maxSum+=currentSum;
32             }
33             currentLength=0;
34             currentSum=0;
35         }
36     }
37     if(currentLength>maxLength){
38         maxSum=currentSum;
39     }
40     else if(currentLength==maxLength){
41         maxSum+=currentSum;
42     }
43     if(maxLength==0){
44         System.out.println(-1);
45     }
46     else{
47         System.out.println(maxSum);
48     }
49     scanner.close();
}

```

| | Input | Expected | Got | |
|---|--|----------|-----|---|
| ✓ | 16 -12 -16 12 18 18 14 -4 -12 -13 32 34 -5 66 78 78 -79 | 62 | 62 | ✓ |
| ✓ | 11 -22 -24 -16 -1 -17 -19 -37 -25 -19 -93 -61 | -1 | -1 | ✓ |
| ✓ | 16 -58 32 26 92 -10 -4 12 0 12 -2 4 32 -9 -7 78 -79 | 174 | 174 | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

Given an integer array as input, perform the following operations on the array, in the below specified sequence.

1. Find the maximum number in the array.
2. Subtract the maximum number from each element of the array.
3. Multiply the maximum number (found in step 1) to each element of the resultant array.

After the operations are done, return the resultant array.

Example 1:

`input1 = 4` (represents the number of elements in the `input1` array)

`input2 = {1, 5, 6, 9}`

Expected Output = `{-72, -36, 27, 0}`

Explanation:

Step 1: The maximum number in the given array is 9.

Step 2: Subtracting the maximum number 9 from each element of the array:

$\{(1 - 9), (5 - 9), (6 - 9), (9 - 9)\} = \{-8, -4, -3, 0\}$

Step 3: Multiplying the maximum number 9 to each of the resultant array:

$\{(-8 \times 9), (-4 \times 9), (3 \times 9), (0 \times 9)\} = \{-72, -36, -27, 0\}$

So, the expected output is the resultant array `{-72, -36, -27, 0}`.

Example 2:

`input1 = 5` (represents the number of elements in the `input1` array)

`input2 = {10, 87, 63, 42, 2}`

Expected Output = `{-6699, 0, -2088, -3915, -7395}`

Explanation:

Step 1: The maximum number in the given array is 87.

Step 2: Subtracting the maximum number 87 from each element of the array:

$\{(10 - 87), (87 - 87), (63 - 87), (42 - 87), (2 - 87)\} = \{-77, 0, -24, -45, -85\}$

Step 3: Multiplying the maximum number 87 to each of the resultant array:

$\{(-77 \times 87), (0 \times 87), (-24 \times 87), (-45 \times 87), (-85 \times 87)\} = \{-6699, 0, -2088, -3915, -7395\}$

So, the expected output is the resultant array `{-6699, 0, -2088, -3915, -7395}`.

Example 3:

`input1 = 2` (represents the number of elements in the `input1` array)

`input2 = {-9, 9}`

Expected Output = `{-162, 0}`

Explanation:

Step 1: The maximum number in the given array is 9.

Step 2: Subtracting the maximum number 9 from each element of the array:

$\{(-9 - 9), (9 - 9)\} = \{-18, 0\}$

Step 3: Multiplying the maximum number 9 to each of the resultant array:

$\{(-18 \times 9), (0 \times 9)\} = \{-162, 0\}$

So, the expected output is the resultant array `{-162, 0}`.

Note: The input array will contain not more than 100 elements

For example:

| Input | Result |
|--------------|---------------|
| 4 1 5 6 9 | -72 -36 -27 0 |

| Input | Result |
|--------------------|---------------------------|
| 5 10 87 63 42 2 | -6699 0 -2088 -3915 -7395 |
| 2 -9 9 | -162 0 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class ArrayOperations{
3     public static void main(String[] args){
4         Scanner scanner=new Scanner(System.in);
5         int input1=scanner.nextInt();
6         int[] input2=new int[input1];
7         for(int i=0;i<input1;i++){
8             input2[i]=scanner.nextInt();
9         }
10        int max=Integer.MIN_VALUE;
11        for(int num : input2){
12            if(num>max){
13                max=num;
14            }
15        }
16        for(int i=0;i<input1;i++){
17            input2[i]=input2[i]-max;
18        }
19        for(int i=0;i<input1;i++){
20            input2[i]=input2[i]*max;
21        }
22        for(int i=0;i<input1;i++){
23            System.out.print(input2[i]);
24            if(i<input1-1){
25                System.out.print(" ");
26            }
27        }
28    }
29 }

```

| | Input | Expected | Got | |
|---|--------------------|---------------------------|---------------------------|---|
| ✓ | 4 1 5 6 9 | -72 -36 -27 0 | -72 -36 -27 0 | ✓ |
| ✓ | 5 10 87 63 42 2 | -6699 0 -2088 -3915 -7395 | -6699 0 -2088 -3915 -7395 | ✓ |
| ✓ | 2 -9 9 | -162 0 | -162 0 | ✓ |

Passed all tests! ✓

◀ Lab-03-MCQ

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Simple Encoded Array ►

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| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Tuesday, 1 October 2024, 10:18 PM |
| Completed | Tuesday, 1 October 2024, 10:57 PM |
| Duration | 38 mins 24 secs |

Question 1

Correct

Marked out of 5.00

Create a class Student with two private attributes, name and roll number. Create three objects by invoking different constructors available in the class Student.

Student()

Student(String name)

Student(String name, int rollno)

Input:

No input

Output:**No-arg constructor is invoked****1 arg constructor is invoked****2 arg constructor is invoked****Name =null , Roll no = 0****Name =Rajalakshmi , Roll no = 0****Name =Lakshmi , Roll no = 101****For example:**

| Test | Result |
|------|---|
| 1 | No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101 |

Answer: (penalty regime: 0 %)

```

1 public class Student{
2     private String name;
3     private int rollNo;
4     public Student(){
5         this.name=null;
6         this.rollNo=0;
7         System.out.println("No-arg constructor is invoked");
8     }
9     public Student(String name){
10        this.name=name;
11        this.rollNo=0;
12        System.out.println("1 arg constructor is invoked");
13    }
14    public Student(String name,int rollNo){
15        this.name=name;
16        this.rollNo=rollNo;
17        System.out.println("2 arg constructor is invoked");
18    }
19    public void displayInfo(){
20        System.out.println("Name =" + this.name + " , Roll no = " +this.rollNo);
21    }
22 }
23 public static void main(String[] args){
24     Student student1=new Student();
25     Student student2=new Student("Rajalakshmi");
26     Student student3=new Student("Lakshmi",101);
27     student1.displayInfo();
28     student2.displayInfo();
29     student3.displayInfo();
30 }
31 }
```

| | Test | Expected | Got | |
|---|------|---|---|---|
| ✓ | 1 | No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101 | No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101 | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

Create a class called "Circle" with a radius attribute. You can access and modify this attribute using getter and setter methods. Calculate the area and circumference of the circle.

Area of Circle = πr^2

Circumference = $2\pi r$

Input:

2

Output:

Area = 12.57

Circumference = 12.57

For example:

| Test | Input | Result |
|------|-------|---------------------------------------|
| 1 | 4 | Area = 50.27 Circumference = 25.13 |

Answer: (penalty regime: 0 %)

Reset answer

```

1 import java.util.Scanner;
2 class Circle
3 {
4     private double radius;
5     public Circle(double radius){
6         this.radius=radius;
7
8
9
10    }
11    public void setRadius(double radius){
12        this.radius=radius;
13
14    }
15    public double getRadius()    {
16        return radius;
17
18    }
19
20    }
21    public double calculateArea() { // complete the below statement
22        return Math.PI*radius*radius;
23
24    }
25    public double calculateCircumference()      {
26        return 2*Math.PI*radius;
27    }
28 }
29 public class Main{
30     public static void main(String[] args) {
31         Scanner sc= new Scanner(System.in);
32         double r=sc.nextDouble();
33         Circle circle= new Circle(r);
34         System.out.printf("Area = %.2f\n" ,circle.calculateArea());
35         System.out.printf("Circumference = %.2f" ,circle.calculateCircumference());
36         sc.close();
37
38     }
39 }
```

| | Test | Input | Expected | Got | |
|---|------|-------|--|--|---|
| ✓ | 1 | 4 | Area = 50.27 Circumference = 25.13 | Area = 50.27 Circumference = 25.13 | ✓ |
| ✓ | 2 | 6 | Area = 113.10 Circumference = 37.70 | Area = 113.10 Circumference = 37.70 | ✓ |
| ✓ | 3 | 2 | Area = 12.57 Circumference = 12.57 | Area = 12.57 Circumference = 12.57 | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

Create a Class Mobile with the attributes listed below,

```
private String manufacturer;
private String operating_system;
public String color;
private int cost;
```

Define a Parameterized constructor to initialize the above instance variables.

Define getter and setter methods for the attributes above.

for example : setter method for manufacturer is

```
void setManufacturer(String manufacturer){
    this.manufacturer= manufacturer;
}
```

```
String getManufacturer(){
    return manufacturer;
}
```

Display the object details by overriding the `toString()` method.

For example:

| Test | Result |
|------|--|
| 1 | manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000 |

Answer: (penalty regime: 0 %)

```
1 public class Mobile{
2     private String manufacturer;
3     private String operatingSystem;
4     private int cost;
5     private String color;
6     public Mobile(String manufacturer, String operatingSystem, int cost, String color){
7         this.manufacturer= manufacturer;
8         this.operatingSystem=operatingSystem;
9         this.cost=cost;
10        this.color=color;
11    }
12    @Override
13    public String toString(){
14        return "manufacturer = " + manufacturer+ "\noperating_system = " + operatingSystem +
15    }
16    public static void main(String[] args){
17        Mobile mobile=new Mobile("Redmi","Andriod",34000,"Blue");
18        System.out.println(mobile.toString());
19    }
20}
21
22
23
```

| | Test | Expected | Got | |
|---|------|--|--|---|
| ✓ | 1 | manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000 | manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000 | ✓ |

Passed all tests! ✓

[◀ Lab-04-MCQ](#)

Jump to...



Number of Primes in a specified range ►

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| | |
|------------------|-------------------------------------|
| Status | Finished |
| Started | Wednesday, 2 October 2024, 12:10 AM |
| Completed | Wednesday, 2 October 2024, 12:12 AM |
| Duration | 2 mins 45 secs |

Question 1

Correct

Marked out of 5.00

Create a class Mobile with constructor and a method basicMobile().

Create a subclass CameraMobile which extends Mobile class , with constructor and a method newFeature().

Create a subclass AndroidMobile which extends CameraMobile, with constructor and a method androidMobile().

display the details of the Android Mobile class by creating the instance. .

```
class Mobile{
```

```
}
```

```
class CameraMobile extends Mobile {
```

```
}
```

```
class AndroidMobile extends CameraMobile {
```

```
}
```

expected output:

Basic Mobile is Manufactured

Camera Mobile is Manufactured

Android Mobile is Manufactured

Camera Mobile with 5MG px

Touch Screen Mobile is Manufactured

For example:

Result

```
Basic Mobile is Manufactured
Camera Mobile is Manufactured
Android Mobile is Manufactured
Camera Mobile with 5MG px
Touch Screen Mobile is Manufactured
```

Answer: (penalty regime: 0 %)

```
1 v class Mobile{
2 v     public Mobile(){
3 v         System.out.println("Basic Mobile is Manufactured");
4 v     }
5 v }
6 v
7 v class CameraMobile extends Mobile{
8 v
9 v     public CameraMobile(){
10 v         System.out.println("Camera Mobile is Manufactured");
11 v     }
12 v     public void newFeature(){
13 v         System.out.println("Camera Mobile with 5MG px");
14 v     }
15 v }
16 v
17 v class AndroidMobile extends CameraMobile{
18 v     public AndroidMobile(){
19 v         System.out.println("Android Mobile is Manufactured");
20 v     }
21 v     void androidMobile(){
22 v         System.out.println("Touch Screen Mobile is Manufactured");
23 v     }
24 v }
25 v
26 v class prog{
27 v     public static void main(String[] args){
28 v         AndroidMobile o=new AndroidMobile();
29 v         o.newFeature();
30 v         o.androidMobile();
31 v     }
32 v }
```

| | Expected | Got | |
|---|---|---|---|
| ✓ | Basic Mobile is Manufactured Camera Mobile is Manufactured Android Mobile is Manufactured Camera Mobile with 5MG px Touch Screen Mobile is Manufactured | Basic Mobile is Manufactured Camera Mobile is Manufactured Android Mobile is Manufactured Camera Mobile with 5MG px Touch Screen Mobile is Manufactured | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

Create a class known as "BankAccount" with methods called deposit() and withdraw().

Create a subclass called SavingsAccount that overrides the withdraw() method to prevent withdrawals if the account balance falls below one hundred.

For example:

Result

```
Create a Bank Account object (A/c No. BA1234) with initial balance of $500:  
Deposit $1000 into account BA1234:  
New balance after depositing $1000: $1500.0  
Withdraw $600 from account BA1234:  
New balance after withdrawing $600: $900.0  
Create a SavingsAccount object (A/c No. SA1000) with initial balance of $300:  
Try to withdraw $250 from SA1000!  
Minimum balance of $100 required!  
Balance after trying to withdraw $250: $300.0
```

Answer: (penalty regime: 0 %)

[Reset answer](#)

```

1  class BankAccount {  
2      private String accountNumber;  
3      private double balance;  
4  
5      public BankAccount(String accountNumber, double balance){  
6          this.accountNumber=accountNumber;  
7          this.balance=balance;  
8      }  
9  
10     // Method to deposit an amount into the account  
11     public void deposit(double amount) {  
12         // Increase the balance by the deposit amount  
13         balance+=amount;  
14     }  
15  
16     public void withdraw(double amount) {  
17         if (balance >= amount) {  
18             balance -= amount;  
19         } else {  
20             System.out.println("Insufficient balance");  
21         }  
22     }  
23  
24  
25     // Method to get the current balance  
26     public double getBalance() {  
27         // Return the current balance  
28         return balance;  
29     }  
30 }  
31  
32 class SavingsAccount extends BankAccount {  
33     // Constructor to initialize account number and balance  
34     public SavingsAccount(String accountNumber, double balance) {  
35         // Call the parent class constructor  
36         super(accountNumber,balance);  
37     }  
38  
39     // Override the withdraw method from the parent class  
40     @Override  
41     public void withdraw(double amount) {  
42         // Check if the withdrawal would cause the balance to drop below $100  
43         if (getBalance() - amount < 100) {  
44             // Print a message if the minimum balance requirement is not met  
45             System.out.println("Minimum balance of $100 required!");  
46         } else {  
47             // Call the parent class withdraw method  
48         }  
49     }
```

```

50     // call the parent class withdraw method
51     super.withdraw(amount);
52 }
```

| | Expected | Got | |
|---|---|---|---|
| ✓ | <p>Create a Bank Account object (A/c No. BA1234) with initial balance of \$500:</p> <p>Deposit \$1000 into account BA1234:</p> <p>New balance after depositing \$1000: \$1500.0</p> <p>Withdraw \$600 from account BA1234:</p> <p>New balance after withdrawing \$600: \$900.0</p> <p>Create a SavingsAccount object (A/c No. SA1000) with initial balance of \$300:</p> <p>Try to withdraw \$250 from SA1000!</p> <p>Minimum balance of \$100 required!</p> <p>Balance after trying to withdraw \$250: \$300.0</p> | <p>Create a Bank Account object (A/c No. BA1234) with initial balance of \$500:</p> <p>Deposit \$1000 into account BA1234:</p> <p>New balance after depositing \$1000: \$1500.0</p> <p>Withdraw \$600 from account BA1234:</p> <p>New balance after withdrawing \$600: \$900.0</p> <p>Create a SavingsAccount object (A/c No. SA1000) with initial balance of \$300:</p> <p>Try to withdraw \$250 from SA1000!</p> <p>Minimum balance of \$100 required!</p> <p>Balance after trying to withdraw \$250: \$300.0</p> | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

create a class called College with attribute String name, constructor to initialize the name attribute , a method called Admitted(). Create a subclass called CSE that extends Student class, with department attribute , Course() method to sub class. Print the details of the Student.

College:

```
String collegeName;
public College() {}
public admitted() {}

Student:
```

```
String studentName;
String department;
public Student(String collegeName, String studentName, String depart) {}
public toString()
```

Expected Output:

A student admitted in REC

CollegeName : REC

StudentName : Venkatesh

Department : CSE

For example:

| Result |
|---|
| A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE |

Answer: (penalty regime: 0 %)

Reset answer

```
1 class College
2 {
3     protected String collegeName;
4
5     public College(String collegeNameP) {
6         // initialize the instance variables
7         collegeName= collegeNameP;
8     }
9
10    public void admitted() {
11        System.out.println("A student admitted in "+collegeName);
12    }
13 }
14 class Student extends College{
15
16     String studentName;
17     String depart;
18
19     public Student(String collegeNameP, String studentNameP, String departP) {
20         // initialize the instance variables
21         super(collegeNameP);
22         studentName=studentNameP;
23         depart=departP;
24
25
26     }
27
28
29    public String toString(){
30        // return the details of the student
31        return "CollegeName : "+collegeName+"\nStudentName : "+studentName+"\nDepartment : "+depart
32    }
33 }
34 class prog {
```

```
35 public static void main (String[] args) {  
36     Student s1 = new Student("REC","Venkatesh","CSE");  
37  
38     s1.admitted();  
39     System.out.println(s1.toString());  
40 }  
41 }
```

| | Expected | Got | |
|---|---|---|---|
| ✓ | A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE | A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE | ✓ |

Passed all tests! ✓

◀ Lab-05-MCQ

Jump to...

Is Palindrome Number? ►

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| | |
|------------------|------------------------------------|
| Status | Finished |
| Started | Saturday, 5 October 2024, 12:41 PM |
| Completed | Saturday, 5 October 2024, 1:11 PM |
| Duration | 30 mins 5 secs |

Question 1

Correct

Marked out of 5.00

Given a String input1, which contains many number of words separated by : and each word contains exactly two lower case alphabets, generate an output based upon the below 2 cases.

Note:

1. All the characters in input 1 are lowercase alphabets.
2. input 1 will always contain more than one word separated by :
3. Output should be returned in uppercase.

Case 1:

Check whether the two alphabets are same.

If yes, then take one alphabet from it and add it to the output.

Example 1:

input1 = ww:ii:pp:rr:oo

output = WIPRO

Explanation:

word1 is ww, both are same hence take w

word2 is ii, both are same hence take i

word3 is pp, both are same hence take p

word4 is rr, both are same hence take r

word5 is oo, both are same hence take o

Hence the output is WIPRO

Case 2:

If the two alphabets are not same, then find the position value of them and find maximum value – minimum value.

Take the alphabet which comes at this (maximum value - minimum value) position in the alphabet series.

Example 2"

input1 = zx:za:ee

output = BYE

Explanation

word1 is zx, both are not same alphabets

position value of z is 26

position value of x is 24

max – min will be $26 - 24 = 2$

Alphabet which comes in 2nd position is b

Word2 is za, both are not same alphabets

position value of z is 26

position value of a is 1

max – min will be $26 - 1 = 25$

Alphabet which comes in 25th position is y

word3 is ee, both are same hence take e

Hence the output is BYE

For example:

| Input | Result |
|----------------|--------|
| ww:ii:pp:rr:oo | WIPRO |
| zx:za:ee | BYE |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2
3 public class prog{
4
5     public static void main(String[] args) {
6         Scanner sc = new Scanner(System.in);
7
8
9         String input = sc.nextLine();
10
11
12         String[] words = input.split(":");
13
14         StringBuilder result = new StringBuilder();
15
16         for (String word : words) {
17             char c1 = word.charAt(0);
18             char c2 = word.charAt(1);
19
20             if (c1 == c2) {
21
22                 result.append(Character.toUpperCase(c1));
23             } else {
24
25                 int pos1 = c1 - 'a' + 1;
26                 int pos2 = c2 - 'a' + 1;
27
28                 int diff = Math.abs(pos1 - pos2);
29
30
31                 char newChar = (char) ('a' + diff - 1);
32                 result.append(Character.toUpperCase(newChar));
33             }
34         }
35
36
37         System.out.println(result.toString());
38
39
40     }
41
42 }
```

| | Input | Expected | Got | |
|---|----------------|----------|-------|---|
| ✓ | ww:ii:pp:rr:oo | WIPRO | WIPRO | ✓ |
| ✓ | zx:za:ee | BYE | BYE | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

You are provided a string of words and a 2-digit number. The two digits of the number represent the two words that are to be processed.

For example:

If the string is "Today is a Nice Day" and the 2-digit number is 41, then you are expected to process the 4th word ("Nice") and the 1st word ("Today").

The processing of each word is to be done as follows:

Extract the Middle-to-Begin part: Starting from the middle of the word, extract the characters till the beginning of the word.

Extract the Middle-to-End part: Starting from the middle of the word, extract the characters till the end of the word.

If the word to be processed is "Nice":

Its Middle-to-Begin part will be "iN".

Its Middle-to-End part will be "ce".

So, merged together these two parts would form "iNce".

Similarly, if the word to be processed is "Today":

Its Middle-to-Begin part will be "doT".

Its Middle-to-End part will be "day".

So, merged together these two parts would form "doTday".

Note: Note that the middle letter 'd' is part of both the extracted parts. So, for words whose length is odd, the middle letter should be included in both the extracted parts.

Expected output:

The expected output is a string containing both the processed words separated by a space "iNce doTday"

Example 1:

input1 = "Today is a Nice Day"

input2 = 41

output = "iNce doTday"

Example 2:

input1 = "Fruits like Mango and Apple are common but Grapes are rare"

input2 = 39

output = "naMngo arGpes"

Note: The input string input1 will contain only alphabets and a single space character separating each word in the string.

Note: The input string input1 will NOT contain any other special characters.

Note: The input number input2 will always be a 2-digit number ($>=11$ and $<=99$). One of its digits will never be 0. Both the digits of the number will always point to a valid word in the input1 string.

For example:

| Input | Result |
|--|---------------|
| Today is a Nice Day 41 | iNce doTday |
| Fruits like Mango and Apple are common but Grapes are rare 39 | naMngo arGpes |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 import java.util.Arrays;
3 import java.lang.String;
4
5 class prog {
6
7     public static void main(String[] args) {
8
9         Scanner o=new Scanner(System.in);
10        String s=o.nextLine();

```

```

11
12
13     int n=o.nextInt();
14
15     String result = processWords(s,n);
16     System.out.println(result);
17
18 }
19
20 public static String processWords(String input1, int input2) {
21
22     String[] words = input1.split(" ");
23
24     int firstIndex = (input2 / 10) - 1;
25     int secondIndex = (input2 % 10) - 1;
26
27     String firstWordProcessed = processWord(words[firstIndex]);
28     String secondWordProcessed = processWord(words[secondIndex]);
29
30
31     return firstWordProcessed + " " + secondWordProcessed;
32 }
33
34
35 public static String processWord(String word) {
36     int length = word.length();
37     int mid = length / 2;
38
39     String l, f;
40
41     if (length % 2 == 0) {
42         f=word.substring(0,mid);
43         f= new StringBuilder(f).reverse().toString();
44         l= word.substring(mid);
45         return f+l ;
46
47     } else {
48         f = word.substring(0, mid + 1);
49         f= new StringBuilder(f).reverse().toString();
50         l= word.substring(mid);
51     }
52 }
```

| | Input | Expected | Got | |
|---|--|-----------------|---------------|---|
| ✓ | Today is a Nice Day 41 | iNce doTday | iNce doTday | ✓ |
| ✓ | Fruits like Mango and Apple are common but Grapes are rare 39 | naMngo arGpes | naMngo arGpes | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

Given 2 strings input1 & input2.

- Concatenate both the strings.
- Remove duplicate alphabets & white spaces.
- Arrange the alphabets in descending order.

Assumption 1:

There will either be alphabets, white spaces or null in both the inputs.

Assumption 2:

Both inputs will be in lower case.

Example 1:

Input 1: apple

Input 2: orange

Output: rponlgea

Example 2:

Input 1: fruits

Input 2: are good

Output: utsroigfeda

Example 3:

Input 1: ""

Input 2: ""

Output: null

For example:

| Test | Input | Result |
|------|--------------------|-------------|
| 1 | apple orange | rponlgea |
| 2 | fruits are good | utsroigfeda |

Answer: (penalty regime: 0 %)

```

1 import java.util.*;
2
3 public class S {
4     public static String solve(String a, String b) {
5         if ((a == null || a.trim().isEmpty()) && (b == null || b.trim().isEmpty())) return "nul
6
7         String combined = a + b;
8         Set<Character> uniqueChars = new HashSet<>();
9
10        for (char c : combined.toCharArray()) {
11            if (Character.isAlphabetic(c)) {
12                uniqueChars.add(c);
13            }
14        }
15
16        char[] charArray = new char[uniqueChars.size()];
17        int i = 0;
18        for (char c : uniqueChars) {
19            charArray[i++] = c;
20        }
21
22        Arrays.sort(charArray);
23        return new StringBuilder(new String(charArray)).reverse().toString();
24    }
25
26    public static void main(String[] args) {
27        Scanner sc = new Scanner(System.in);

```

```
28
29     String input1 = sc.nextLine();
30     String input2 = sc.nextLine();
31     System.out.println(solve(input1, input2));
32 }
33 }
34 }
```

| | Test | Input | Expected | Got | |
|---|------|--------------------|-------------|-------------|---|
| ✓ | 1 | apple orange | rponlgea | rponlgea | ✓ |
| ✓ | 2 | fruits are good | utsroigfeda | utsroigfeda | ✓ |
| ✓ | 3 | | null | null | ✓ |

Passed all tests! ✓

◀ Lab-06-MCQ

Jump to...

Return second word in Uppercase ►



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| | |
|------------------|-------------------------------------|
| Status | Finished |
| Started | Wednesday, 2 October 2024, 12:15 AM |
| Completed | Wednesday, 2 October 2024, 12:16 AM |
| Duration | 1 min 34 secs |

Question 1

Correct

Marked out of 5.00

Create interfaces shown below.

```
interface Sports {
    public void setHomeTeam(String name);
    public void setVisitingTeam(String name);
}
interface Football extends Sports {
    public void homeTeamScored(int points);
    public void visitingTeamScored(int points);}
```

create a class College that implements the Football interface and provides the necessary functionality to the abstract methods.

sample Input:

Rajalakshmi
Saveetha
22
21

Output:

Rajalakshmi 22 scored
Saveetha 21 scored
Rajalakshmi is the Winner!

For example:

| Test | Input | Result |
|------|-------------------------------------|---|
| 1 | Rajalakshmi Saveetha 22 21 | Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner! |

Answer: (penalty regime: 0 %)

Reset answer

```
1 import java.util.Scanner;
2 interface Sports {
3     void setHomeTeam(String name);
4     void setVisitingTeam(String name);
5 }
6 interface Football extends Sports {
7     void homeTeamScored(int points);
8     void visitingTeamScored(int points);
9 }
10 class College implements Football {
11     private String homeTeam;
12     private String visitingTeam;
13     private int homeScore;
14     private int visitingScore;
15     public void setHomeTeam(String name) {
16         this.homeTeam = name;
17     }
18     public void setVisitingTeam(String name) {
19         this.visitingTeam = name;
20     }
21     public void homeTeamScored(int points) {
22         this.homeScore = points;
23     }
24     public void visitingTeamScored(int points) {
25         this.visitingScore = points;
26     }
27     public void displayResult() {
28         System.out.println(homeTeam + " " + homeScore + " scored");
29         System.out.println(visitingTeam + " " + visitingScore + " scored");
30         if (homeScore > visitingScore) {
31             System.out.println(homeTeam + " is the winner!");
32         } else if (visitingScore > homeScore) {
33             System.out.println(visitingTeam + " is the winner!");
34         } else {
```

```

35     System.out.println("It's a tie match.");
36 }
37 }
38 }
39 public class Main {
40     public static void main(String[] args) {
41         Scanner scanner = new Scanner(System.in);
42         College match = new College();
43         String homeTeam = scanner.nextLine();
44         String visitingTeam = scanner.nextLine();
45         int homeScore = scanner.nextInt();
46         int visitingScore = scanner.nextInt();
47         match.setHomeTeam(homeTeam);
48         match.setVisitingTeam(visitingTeam);
49         match.homeTeamScored(homeScore);
50         match.visitingTeamScored(visitingScore);
51         match.displayResult();
52         scanner.close();

```

| | Test | Input | Expected | Got | |
|---|------|-------------------------------------|---|---|---|
| ✓ | 1 | Rajalakshmi Saveetha 22 21 | Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner! | Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner! | ✓ |
| ✓ | 2 | Anna Balaji 21 21 | Anna 21 scored Balaji 21 scored It's a tie match. | Anna 21 scored Balaji 21 scored It's a tie match. | ✓ |
| ✓ | 3 | SRM VIT 20 21 | SRM 20 scored VIT 21 scored VIT is the winner! | SRM 20 scored VIT 21 scored VIT is the winner! | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

RBI issues all national banks to collect interest on all customer loans.

Create an RBI interface with a variable String parentBank="RBI" and abstract method rateOfInterest().

RBI interface has two more methods default and static method.

```
default void policyNote() {
    System.out.println("RBI has a new Policy issued in 2023.");
}

static void regulations() {
    System.out.println("RBI has updated new regulations on 2024.");
}
```

Create two subclasses SBI and Karur which implements the RBI interface.

Provide the necessary code for the abstract method in two sub-classes.

Sample Input/Output:

RBI has a new Policy issued in 2023
RBI has updated new regulations in 2024.
SBI rate of interest: 7.6 per annum.
Karur rate of interest: 7.4 per annum.

For example:

| Test | Result |
|------|---|
| 1 | RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum. |

Answer: (penalty regime: 0 %)

```
1 interface RBI {
2     String parentBank = "RBI";
3     double rateOfInterest();
4     default void policyNote() {
5         System.out.println("RBI has a new Policy issued in 2023");
6     }
7     static void regulations() {
8         System.out.println("RBI has updated new regulations in 2024.");
9     }
10 }
11 class SBI implements RBI {
12     @Override
13     public double rateOfInterest() {
14         return 7.6;
15     }
16 }
17 class Karur implements RBI {
18     @Override
19     public double rateOfInterest() {
20         return 7.4;
21     }
22 }
23 public class Main {
24     public static void main(String[] args) {
25         SBI sbi = new SBI();
26         Karur karur = new Karur();
27         sbi.policyNote();
28         RBI.regulations();
29         System.out.println("SBI rate of interest: " + sbi.rateOfInterest() + " per annum.");
30         System.out.println("Karur rate of interest: " + karur.rateOfInterest() + " per annum.")
31     }
32 }
```

| | Test | Expected | Got | |
|---|-------------|---|---|---|
| ✓ | 1 | RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum. | RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum. | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

create an interface Playable with a method play() that takes no arguments and returns void. Create three classes Football, Volleyball, and Basketball that implement the Playable interface and override the play() method to play the respective sports.

```
interface Playable {
    void play();
}

class Football implements Playable {
    String name;
    public Football(String name){
        this.name=name;
    }
    public void play() {
        System.out.println(name+" is Playing football");
    }
}
```

Similarly, create Volleyball and Basketball classes.

Sample output:

```
Sadvin is Playing football
Sanjay is Playing volleyball
Sruthi is Playing basketball
```

For example:

| Test | Input | Result |
|------|----------------------------|--|
| 1 | Sadvin Sanjay Sruthi | Sadvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball |
| 2 | Vijay Arun Balaji | Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball |

Answer: (penalty regime: 0 %)

```
1 import java.util.Scanner;
2 interface Playable {
3     void play();
4 }
5 class Football implements Playable {
6     String name;
7     public Football(String name) {
8         this.name = name;
9     }
10
11    @Override
12    public void play() {
13        System.out.println(name + " is Playing football");
14    }
15 }
16 class Volleyball implements Playable {
17     String name;
18
19     public Volleyball(String name) {
20         this.name = name;
21     }
22    @Override
23    public void play() {
24        System.out.println(name + " is Playing volleyball");
25    }
26 }
27 class Basketball implements Playable {
28     String name;
29     public Basketball(String name) {
30         this.name = name;
31     }
32    @Override
```

```

33 v     public void play() {
34     System.out.println(name + " is Playing basketball");
35 }
36 }
37 v public class Main {
38 v     public static void main(String[] args) {
39         Scanner scanner = new Scanner(System.in);
40         String footballPlayerName = scanner.nextLine();
41         String volleyballPlayerName = scanner.nextLine();
42         String basketballPlayerName = scanner.nextLine();
43         Playable footballPlayer = new Football(footballPlayerName);
44         Playable volleyballPlayer = new Volleyball(volleyballPlayerName);
45         Playable basketballPlayer = new Basketball(basketballPlayerName);
46         footballPlayer.play();
47         volleyballPlayer.play();
48         basketballPlayer.play();
49         scanner.close();
50     }
51 }

```

| | Test | Input | Expected | Got | |
|---|-------------|-----------------------------|---|---|---|
| ✓ | 1 | Sadhvin Sanjay Sruthi | Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball | Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball | ✓ |
| ✓ | 2 | Vijay Arun Balaji | Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball | Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball | ✓ |

Passed all tests! ✓

◀ Lab-07-MCQ

Jump to...

Generate series and find Nth element ►

[Dashboard](#) / [My courses](#) / [CS23333-OOPUJ-2023](#) / [Lab-08 - Polymorphism, Abstract Classes, final Keyword](#) / [Lab-08-Logic Building](#)

| | |
|------------------|----------------------------------|
| Status | Finished |
| Started | Monday, 7 October 2024, 12:11 PM |
| Completed | Monday, 7 October 2024, 12:37 PM |
| Duration | 26 mins 6 secs |

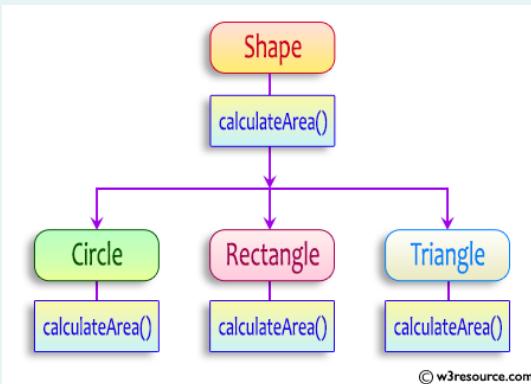
Question 1

Correct

Marked out of 5.00

Create a base class Shape with a method called calculateArea(). Create three subclasses: Circle, Rectangle, and Triangle. Override the calculateArea() method in each subclass to calculate and return the shape's area.

In the given exercise, here is a simple diagram illustrating polymorphism implementation:



```

abstract class Shape {
    public abstract double calculateArea();
}

```

System.out.printf("Area of a Triangle :%.2f%n",((0.5)*base*height)); // use this statement

sample Input :

```

4 // radius of the circle to calculate area PI*r*r
5 // length of the rectangle
6 // breadth of the rectangle to calculate the area of a rectangle
4 // base of the triangle
3 // height of the triangle

```

OUTPUT:

Area of a circle :50.27

Area of a Rectangle :30.00

Area of a Triangle :6.00

For example:

| Test | Input | Result |
|------|-------------------------------|--|
| 1 | 4 5 6 4 3 | Area of a circle: 50.27 Area of a Rectangle: 30.00 Area of a Triangle: 6.00 |
| 2 | 7 4.5 6.5 2.4 3.6 | Area of a circle: 153.94 Area of a Rectangle: 29.25 Area of a Triangle: 4.32 |

Answer: (penalty regime: 0 %)

```

1 import java.util.*;
2 abstract class s
3 {
4     public abstract double calculateArea();
5 }
6 class c extends s
7 {
8     double r;
9     c(double r)
10 {
11     this.r=r;
12 }
  
```

```

13     public double calculateArea()
14     {
15         double a=Math.PI*r*r;
16         System.out.printf("Area of a circle: %.2f\n",a);
17         return a;
18     }
19 }
20 class r extends s
21 {
22     double l;
23     double b;
24     r(double l,double b)
25     {
26         this.l=l;
27         this.b=b;
28     }
29     public double calculateArea()
30     {
31         double a=l*b;
32         System.out.printf("Area of a Rectangle: %.2f\n",a);
33         return a;
34     }
35 }
36 class t extends s
37 {
38     double b;
39     double h;
40     t(double b,double h)
41     {
42         this.b=b;
43         this.h=h;
44     }
45     public double calculateArea()
46     {
47         double a=b*h*0.5;
48         System.out.printf("Area of a Triangle: %.2f\n",a);
49         return a;
50     }
51 }
52 public class hello

```

| | Test | Input | Expected | Got | |
|---|------|-------------------------------|--|--|---|
| ✓ | 1 | 4 5 6 4 3 | Area of a circle: 50.27 Area of a Rectangle: 30.00 Area of a Triangle: 6.00 | Area of a circle: 50.27 Area of a Rectangle: 30.00 Area of a Triangle: 6.00 | ✓ |
| ✓ | 2 | 7 4.5 6.5 2.4 3.6 | Area of a circle: 153.94 Area of a Rectangle: 29.25 Area of a Triangle: 4.32 | Area of a circle: 153.94 Area of a Rectangle: 29.25 Area of a Triangle: 4.32 | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

1. Final Variable:

- Once a variable is declared `final`, its value cannot be changed after it is initialized.
- It must be initialized when it is declared or in the constructor if it's not initialized at declaration.
- It can be used to define constants

```
final int MAX_SPEED = 120; // Constant value, cannot be changed
```

2. Final Method:

- A method declared `final` cannot be overridden by subclasses.
- It is used to prevent modification of the method's behavior in derived classes.

```
public final void display() {
    System.out.println("This is a final method.");
}
```

3. Final Class:

- A class declared as `final` cannot be subclassed (i.e., no other class can inherit from it).
- It is used to prevent a class from being extended and modified.
- `public final class Vehicle {
 // class code
}`

Given a Java Program that contains the bug in it, your task is to clear the bug to the output.

you should delete any piece of code.

For example:

| Test | Result |
|------|---|
| 1 | The maximum speed is: 120 km/h This is a subclass of FinalExample. |

Answer: (penalty regime: 0 %)

Reset answer

```
1 v class FinalExample {
2     int maxSpeed=120;
3 v     public final void displayMaxSpeed(){
4         System.out.println("The maximum speed is: " + maxSpeed + " km/h");
5     }
6 }
7 v class SubClass extends FinalExample {
8     public void showDetails() {
9         System.out.println("This is a subclass of FinalExample.");
10    }
11 }
12
13 v class prog {
14     public static void main(String[] args) {
15         FinalExample obj = new FinalExample();
16         obj.displayMaxSpeed();
17         SubClass subObj = new SubClass();
18         subObj.showDetails();
19     }
20 }
21
```

| | Test | Expected | Got | |
|---|------|---|---|---|
| ✓ | 1 | The maximum speed is: 120 km/h This is a subclass of FinalExample. | The maximum speed is: 120 km/h This is a subclass of FinalExample. | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

As a logic building learner you are given the task to extract the string which has vowel as the first and last characters from the given array of Strings.

Step1: Scan through the array of Strings, extract the Strings with first and last characters as vowels; these strings should be concatenated.

Step2: Convert the concatenated string to lowercase and return it.

If none of the strings in the array has first and last character as vowel, then return no matches found

input1: an integer representing the number of elements in the array.

input2: String array.

Example 1:

input1: 3

input2: {"oreo", "sirish", "apple"}

output: oreoapple

Example 2:

input1: 2

input2: {"Mango", "banana"}

output: no matches found

Explanation:

None of the strings has first and last character as vowel.

Hence the output is no matches found.

Example 3:

input1: 3

input2: {"Ate", "Ace", "Girl"}

output: ateace

For example:

| Input | Result |
|------------------------|------------------|
| 3 oreo sirish apple | oreoapple |
| 2 Mango banana | no matches found |
| 3 Ate Ace Girl | ateace |

Answer: (penalty regime: 0 %)

```

1 import java.util.*;
2 public class hello
3 {
4     public static void main(String[] args)
5     {
6         Scanner sc=new Scanner(System.in);
7         int n=sc.nextInt();
8         int k=0;
9         String arr[]=new String[n];
10        for(int i=0;i<n;i++)
11        {
12            arr[i]=sc.next();
13            arr[i]=arr[i].toLowerCase();
14            char ch=arr[i].charAt(0);
15            if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u')
16            {
17                int z=arr[i].length();
18                char v=arr[i].charAt(z-1).

```

```
18     .....
```

```
19     if (x=='a' || x=='e' || x=='i' || x=='o' || x=='u')  
20     {  
21         k=1;  
22         System.out.print(arr[i]);  
23     }  
24  
25 }  
26 }  
27 if(k==0)  
28 {  
29     System.out.println("no matches found");  
30 }  
31  
32 }  
33 }
```

| | Input | Expected | Got | |
|---|------------------------|------------------|------------------|---|
| ✓ | 3 oreo sirish apple | oreoapple | oreoapple | ✓ |
| ✓ | 2 Mango banana | no matches found | no matches found | ✓ |
| ✓ | 3 Ate Ace Girl | ateace | ateace | ✓ |

Passed all tests! ✓

◀ Lab-08-MCQ

Jump to...

[FindStringCode ►](#)

[Dashboard](#) / [My courses](#) / [CS23333-OOPUJ-2023](#) / [Lab-09-Exception Handling](#) / [Lab-09-Logic Building](#)

| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Monday, 21 October 2024, 11:37 PM |
| Completed | Monday, 21 October 2024, 11:45 PM |
| Duration | 8 mins |

Question 1

Correct

Marked out of 5.00

In the following program, an array of integer data is to be initialized.

During the initialization, if a user enters a value other than an integer, it will throw an InputMismatchException exception.

On the occurrence of such an exception, your program should print "You entered bad data."

If there is no such exception it will print the total sum of the array.

```
/* Define try-catch block to save user input in the array "name"
```

```
If there is an exception then catch the exception otherwise print the total sum of the array. */
```

Sample Input:

```
3  
5 2 1
```

Sample Output:

```
8
```

Sample Input:

```
2  
1 g
```

Sample Output:

```
You entered bad data.
```

For example:

| Input | Result |
|------------|-----------------------|
| 3 5 2 1 | 8 |
| 2 1 g | You entered bad data. |

Answer: (penalty regime: 0 %)

[Reset answer](#)

```
1 import java.util.Scanner;  
2 import java.util.InputMismatchException;  
3  
4 class prog {  
5     public static void main(String[] args) {  
6         Scanner sc = new Scanner(System.in);  
7         int length = sc.nextInt();  
8         int[] name = new int[length];  
9         int sum = 0;  
10  
11         try {  
12             for (int i = 0; i < length; i++) {  
13                 name[i] = sc.nextInt();  
14             }  
15  
16             for (int num : name) {  
17                 sum += num;  
18             }  
19             System.out.println(sum);  
20         } catch (InputMismatchException e) {  
21             System.out.println("You entered bad data.");  
22         } finally {  
23             sc.close();  
24         }  
25     }  
26 }
```

| | Input | Expected | Got | |
|---|------------|-----------------------|-----------------------|---|
| ✓ | 3 5 2 1 | 8 | 8 | ✓ |
| ✓ | 2 1 g | You entered bad data. | You entered bad data. | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

Write a Java program to create a method that takes an integer as a parameter and throws an exception if the number is odd.

Sample input and Output:

```
82 is even.  
Error: 37 is odd.
```

Fill the preloaded answer to get the expected output.

For example:

| Result |
|----------------------------------|
| 82 is even. Error: 37 is odd. |

Answer: (penalty regime: 0 %)**Reset answer**

```

1 v class prog {
2 v   public static void main(String[] args) {
3 v     int n = 82;
4 v     trynumber(n);
5 v     n = 37;
6 v     trynumber(n);
7 v   }
8
9 v   public static void trynumber(int n) {
10 v     try {
11 v       checkEvenNumber(n);
12 v       System.out.println(n + " is even.");
13 v     } catch (Exception e) {
14 v       System.out.println("Error: " + e.getMessage());
15 v     }
16 v   }
17
18 v   public static void checkEvenNumber(int number) throws Exception {
19 v     if (number % 2 != 0) {
20 v       throw new Exception(number + " is odd.");
21 v     }
22 v   }
23 }
```

| | Expected | Got | |
|---|----------------------------------|----------------------------------|---|
| ✓ | 82 is even. Error: 37 is odd. | 82 is even. Error: 37 is odd. | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

Write a Java program to handle `ArithmaticException` and `ArrayIndexOutOfBoundsException`.

Create an array, read the input from the user, and store it in the array.

Divide the 0th index element by the 1st index element and store it.

If the 1st element is zero, it will throw an exception.

If you try to access an element beyond the array limit throws an exception.

Input:

```
5
10 0 20 30 40
```

Output:

`java.lang.ArithmaticException: / by zero`

I am always executed

Input:

```
3
10 20 30
```

Output

`java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3`

I am always executed

For example:

| Test | Input | Result |
|------|------------------|---|
| 1 | 6 1 0 4 1 2 8 | <code>java.lang.ArithmaticException: / by zero</code> I am always executed |

Answer: (penalty regime: 0 %)

```
1 v import java.util.*;
2 v public class Main {
3 v     public static void main(String[] args) {
4 v         Scanner s = new Scanner(System.in);
5 v         int size = s.nextInt();
6 v         int[] array = new int[size];
7 v         for (int i = 0; i < size; i++) {
8 v             array[i] = s.nextInt();
9 v         }
10 v
11 v         try {
12 v             int result = array[0] / array[1];
13 v             System.out.println(" " + array[3]);
14 v         } catch (ArithmaticException e) {
15 v             System.out.println(e);
16 v         } catch (ArrayIndexOutOfBoundsException e) {
17 v             System.out.println(e);
18 v         } finally {
19 v             System.out.println("I am always executed");
20 v         }
21 v     }
22 }
```

| | Test | Input | Expected | Got | |
|---|------|---------------------|---|---|---|
| ✓ | 1 | 6 1 0 4 1 2 8 | <code>java.lang.ArithmaticException: / by zero</code> I am always executed | <code>java.lang.ArithmaticException: / by zero</code> I am always executed | ✓ |
| ✓ | 2 | 3 10 20 30 | <code>java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3</code> I am always executed | <code>java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3</code> I am always executed | ✓ |

Passed all tests! ✓

◀ Lab-09-MCQ

Jump to...



The “Nambiar Number” Generator ►

[Dashboard](#) / [My courses](#) / [CS23333-OOPUJ-2023](#) / [Lab-10- Collection- List](#) / [Lab-10-Logic Building](#)

| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Tuesday, 5 November 2024, 8:23 AM |
| Completed | Tuesday, 5 November 2024, 8:49 AM |
| Duration | 26 mins 2 secs |

Question 1

Correct

Marked out of 1.00

Given an ArrayList, the task is to get the first and last element of the ArrayList in Java.

```
Input: ArrayList = [1, 2, 3, 4]
Output: First = 1, Last = 4
```

```
Input: ArrayList = [12, 23, 34, 45, 57, 67, 89]
Output: First = 12, Last = 89
```

Approach:

1. Get the ArrayList with elements.
2. Get the first element of ArrayList using the get(index) method by passing index = 0.
3. Get the last element of ArrayList using the get(index) method by passing index = size - 1.

Answer: (penalty regime: 0 %)

```
1 import java.util.*;
2 public class Main{
3     public static void main(String args[]){
4         Scanner a=new Scanner(System.in);
5         int n=a.nextInt();
6         ArrayList<Integer> b=new ArrayList<>();
7         for(int i=0;i<n;i++){
8             b.add(a.nextInt());
9         }
10        System.out.println("ArrayList: "+b);
11        System.out.print("First : "+b.get(0)+" , "+" Last : "+b.get(n-1));
12    }
13}
14}
```

| | Test | Input | Expected | Got | |
|---|-------------|---------------------------------------|--|--|---|
| ✓ | 1 | 6 30 20 40 50 10 80 | ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80 | ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80 | ✓ |
| ✓ | 2 | 4 5 15 25 35 | ArrayList: [5, 15, 25, 35] First : 5, Last : 35 | ArrayList: [5, 15, 25, 35] First : 5, Last : 35 | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 1.00

The given Java program is based on the ArrayList methods and its usage. The Java program is partially filled. Your task is to fill in the incomplete statements to get the desired output.

```
list.set();
list.indexOf();
list.lastIndexOf()
list.contains()
list.size();
list.add();
list.remove();
```

The above methods are used for the below Java program.

Answer: (penalty regime: 0 %)

[Reset answer](#)

```
1 import java.util.ArrayList;
2 import java.util.Scanner;
3
4 public class Prog{
5
6     public static void main(String[] args)
7     {
8         Scanner sc= new Scanner(System.in);
9         int n = sc.nextInt();
10
11        ArrayList<Integer> list = new ArrayList<Integer>();
12
13        for(int i = 0; i<n;i++)
14            list.add(sc.nextInt());
15
16        // printing initial value ArrayList
17        System.out.println("ArrayList: " + list);
18
19        //Replacing the element at index 1 with 100
20        list.set(1,100);
21
22        //Getting the index of first occurrence of 100
23        System.out.println("Index of 100 = "+list.indexOf(100));
24
25        //Getting the index of last occurrence of 100
26        System.out.println("LastIndex of 100 = "+list.lastIndexOf(100));
27        // Check whether 200 is in the list or not
28        System.out.println( list.contains(200)); //Output : false
29        // Print ArrayList size
30        System.out.println("Size Of ArrayList = "+ list.size());
31        //Inserting 500 at index 1
32        list.add(1,500); // code here
33        //Removing an element from position 3
34        list.remove(3); // code here
35        System.out.print("ArrayList: " + list);
36    }
37}
38
```

| | Test | Input | Expected | Got | |
|---|------|------------------------------|--|--|---|
| ✓ | 1 | 5 1 2 3 100 5 | ArrayList: [1, 2, 3, 100, 5] Index of 100 = 1 LastIndex of 100 = 3 false Size Of ArrayList = 5 ArrayList: [1, 500, 100, 100, 5] | ArrayList: [1, 2, 3, 100, 5] Index of 100 = 1 LastIndex of 100 = 3 false Size Of ArrayList = 5 ArrayList: [1, 500, 100, 100, 5] | ✓ |

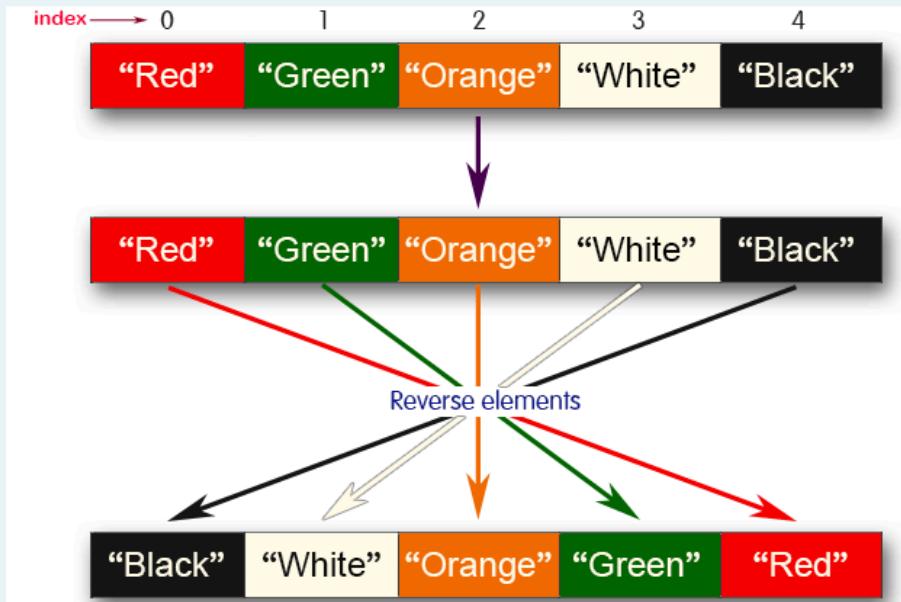
Passed all tests! ✓

Question 3

Correct

Marked out of 1.00

Write a Java program to reverse elements in an array list.



Sample input and Output:

Red
Green
Orange
White
Black

Sample output

List before reversing :
[Red, Green, Orange, White, Black]
List after reversing :
[Black, White, Orange, Green, Red]

Answer: (penalty regime: 0 %)

```

1 import java.util.*;
2 public class Main{
3     public static void main(String args[]){
4         Scanner a=new Scanner(System.in);
5         ArrayList<String> b=new ArrayList<>();
6         int n=a.nextInt();
7         a.nextLine();
8         for(int i=0;i<n;i++){
9             b.add(a.nextLine());
10        }
11        System.out.println("List before reversing : \n"+b);
12        Collections.reverse(b);
13        System.out.println("List after reversing : \n"+b);
14    }
15 }

```

| | Test | Input | Expected | Got | |
|---|-------------|---|---|---|---|
| ✓ | 1 | 5 Red Green Orange White Black | List before reversing : [Red, Green, Orange, White, Black] List after reversing : [Black, White, Orange, Green, Red] | List before reversing : [Red, Green, Orange, White, Black] List after reversing : [Black, White, Orange, Green, Red] | ✓ |
| ✓ | 2 | 4 CSE AIML AIDS CYBER | List before reversing : [CSE, AIML, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIML, CSE] | List before reversing : [CSE, AIML, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIML, CSE] | ✓ |

Passed all tests! ✓

◀ Lab-10-MCQ

Jump to...



Lab-11-MCQ ►

[Dashboard](#) / [My courses](#) / [CS23333-OOPUJ-2023](#) / [Lab-11-Set, Map](#) / [Lab-11-Logic Building](#)

| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Sunday, 10 November 2024, 7:29 PM |
| Completed | Sunday, 10 November 2024, 7:57 PM |
| Duration | 28 mins 7 secs |

Question 1

Correct

Marked out of 1.00

Java HashSet class implements the Set interface, backed by a hash table which is actually a [HashMap](#) instance.

No guarantee is made as to the iteration order of the hash sets which means that the class does not guarantee the constant order of elements over time.

This class permits the null element.

The class also offers constant time performance for the basic operations like add, remove, contains, and size assuming the hash function disperses the elements properly among the buckets.

Java HashSet Features

A few important features of HashSet are mentioned below:

- Implements [Set Interface](#).
- The underlying data structure for HashSet is [Hashtable](#).
- As it implements the Set Interface, duplicate values are not allowed.
- Objects that you insert in HashSet are not guaranteed to be inserted in the same order. Objects are inserted based on their hash code.
- NULL elements are allowed in HashSet.
- HashSet also implements **Serializable** and **Cloneable** interfaces.

```
public class HashSet<E> extends AbstractSet<E> implements Set<E>, Cloneable, Serializable
```

Sample Input and Output:

5

90

56

45

78

25

78

Sample Output:

78 was found in the set.

Sample Input and output:

3

2

7

9

5

Sample Input and output:

5 was not found in the set.

Answer: (penalty regime: 0 %)

Reset answer

```
1 import java.util.HashSet;
2 import java.util.Scanner;
3
4 class prog {
5     public static void main(String[] args) {
6         Scanner sc = new Scanner(System.in);
7         int n = sc.nextInt();
8         HashSet<Integer> numbers = new HashSet<>();
9         for (int i = 0; i < n; i++) {
10             numbers.add(sc.nextInt());
11         }
12         int skey = sc.nextInt();
13
14         if (numbers.contains(skey)) {
15             System.out.println(skey + " was found in the set.");
16         } else {
17             System.out.println(skey + " was not found in the set.");
18         }
19         sc.close();
20     }
21 }
```

| | Test | Input | Expected | Got | |
|---|-------------|---------------------------------------|-----------------------------|-----------------------------|---|
| ✓ | 1 | 5 90 56 45 78 25 78 | 78 was found in the set. | 78 was found in the set. | ✓ |
| ✓ | 2 | 3 -1 2 4 5 | 5 was not found in the set. | 5 was not found in the set. | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 1.00

Write a Java program to compare two sets and retain elements that are the same.

Sample Input and Output:

```
5
Football
Hockey
Cricket
Volleyball
Basketball
```

```
7 // HashSet 2:
Golf
Cricket
Badminton
Football
Hockey
Volleyball
Handball
```

SAMPLE OUTPUT:

```
Football
Hockey
Cricket
Volleyball
Basketball
```

Answer: (penalty regime: 0 %)

```
1 import java.util.HashSet;
2 import java.util.Scanner;
3 import java.util.Set;
4
5 public class CompareSets {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int n1 = sc.nextInt();
9         sc.nextLine();
10        Set<String> set1 = new HashSet<>();
11        for (int i = 0; i < n1; i++) {
12            set1.add(sc.nextLine());
13        }
14        int n2 = sc.nextInt();
15        sc.nextLine();
16        Set<String> set2 = new HashSet<>();
17        for (int i = 0; i < n2; i++) {
18            set2.add(sc.nextLine());
19        }
20        set1.retainAll(set2);
21        for (String item : set1) {
22            System.out.println(item);
23        }
24    }
25 }
26 }
```

| | Test | Input | Expected | Got | |
|---|-------------|--|---|---|---|
| ✓ | 1 | 5 Football Hockey Cricket Volleyball Basketball 7 Golf Cricket Badminton Football Hockey Volleyball Throwball | Cricket Hockey Volleyball Football | Cricket Hockey Volleyball Football | ✓ |
| ✓ | 2 | 4 Toy Bus Car Auto 3 Car Bus Lorry | Bus Car | Bus Car | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 1.00

Java HashMap Methods

[containsKey\(\)](#). Indicate if an entry with the specified key exists in the map[containsValue\(\)](#). Indicate if an entry with the specified value exists in the map[putIfAbsent\(\)](#). Write an entry into the map but only if an entry with the same key does not already exist[remove\(\)](#). Remove an entry from the map[replace\(\)](#) Write to an entry in the map only if it exists[size\(\)](#). Return the number of entries in the map

Your task is to fill the incomplete code to get desired output

Answer: (penalty regime: 0 %)[Reset answer](#)

```

1 import java.util.HashMap;
2 import java.util.Map.Entry;
3 import java.util.Set;
4 import java.util.Scanner;
5
6 class prog {
7     public static void main(String[] args) {
8         HashMap<String, Integer> map = new HashMap<String, Integer>();
9
10        String name;
11        int num;
12        Scanner sc = new Scanner(System.in);
13        int n = sc.nextInt();
14        for (int i = 0; i < n; i++) {
15            name = sc.next();
16            num = sc.nextInt();
17            map.put(name, num);
18        }
19        Set<Entry<String, Integer>> entrySet = map.entrySet();
20        for (Entry<String, Integer> entry : entrySet) {
21            System.out.println(entry.getKey() + " : " + entry.getValue());
22        }
23
24        System.out.println("-----");
25        HashMap<String, Integer> anotherMap = new HashMap<String, Integer>();
26        anotherMap.put("SIX", 6);
27        anotherMap.put("SEVEN", 7);
28        anotherMap.putAll(map);
29        entrySet = anotherMap.entrySet();
30        for (Entry<String, Integer> entry : entrySet) {
31            System.out.println(entry.getKey() + " : " + entry.getValue());
32        }
33        map.putIfAbsent("FIVE", 5);
34        Integer value = map.get("TWO");
35        if (value != null) {
36            System.out.println(value);
37        } else {
38            System.out.println("Key 'TWO' not found");
39        }
40        System.out.println(map.containsKey("ONE"));
41        System.out.println(map.containsValue(3));
42        System.out.println(map.size());
43        sc.close();
44    }
45 }
46

```

| | Test | Input | Expected | Got | |
|---|------|---|---|---|---|
| ✓ | 1 | 3 ONE 1 TWO 2 THREE 3 | ONE : 1 TWO : 2 THREE : 3 ----- SIX : 6 ONE : 1 TWO : 2 SEVEN : 7 THREE : 3 2 true true 4 | ONE : 1 TWO : 2 THREE : 3 ----- SIX : 6 ONE : 1 TWO : 2 SEVEN : 7 THREE : 3 2 true true 4 | ✓ |

Passed all tests! ✓

◀ Lab-11-MCQ

Jump to...



TreeSet example ►

[Dashboard](#) / [My courses](#) / [CS23333-OOPUJ-2023](#) / [Lab-12-Introduction to I/O, I/O Operations, Object Serialization](#) / [Lab-12-Logic Building](#)

| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Sunday, 10 November 2024, 7:58 PM |
| Completed | Sunday, 10 November 2024, 8:23 PM |
| Duration | 24 mins 20 secs |

Question 1

Correct

Marked out of 5.00

You are provided with a string which has a sequence of 1's and 0's.

This sequence is the encoded version of a English word. You are supposed write a program to decode the provided string and find the original word.

Each alphabet is represented by a sequence of 0s.

This is as mentioned below:

Z: 0

Y · 00

x · 000

w : 0000

V:00000

U · 000000

T: 0000000

and so on upto A having 26 0's (00000000000000000000000000000000).

The sequence of 0's in the encoded form are separated by a single 1 which helps to distinguish between 2 letters.

Example 1:

input1: 010010001

The decoded string (original word) will be: ZYX

Example 2:

input1: 0000100000000000000000000010000000000001000000000000100000000000010000000000001

The decoded string (original word) will be: WIPRO

Note: The decoded string must always be in **UPPER** case.

For example:

| Input | Result |
|---|--------|
| 010010001 | ZYX |
| 000010000000000000000000000000001000000000000100000000000010000000000000001 | WIPRO |

Answer: (penalty regime: 0 %)

```
1 import java.util.Scanner;
2
3 public class BinaryDecoder {
4     public static String decode(String input) {
5         StringBuilder decodedWord = new StringBuilder();
6         String[] parts = input.split("1");
7
8         for (String part : parts) {
9             int length = part.length();
10            if (length > 0 && length <= 26) {
11                char letter = (char) ('A' + (26 - length));
12                decodedWord.append(letter);
13            }
14        }
15
16        return decodedWord.toString();
17    }
18
19    public static void main(String[] args) {
20        Scanner scanner = new Scanner(System.in);
21
22        System.out.print("");
23        String input = scanner.nextLine();
24
25        String result = decode(input);
26        System.out.println("") + result);
27    }
28}
```

```
27 |     .....
28 |     scanner.close();
29 |
30 | }
```

Passed all tests! ✓

Question 2

Correct

Marked out of 5.00

Given two char arrays input1[] and input2[] containing only lower case alphabets, extracts the alphabets which are present in both arrays (common alphabets).

Get the ASCII values of all the extracted alphabets.

Calculate sum of those ASCII values. Lets call it sum1 and calculate single digit sum of sum1, i.e., keep adding the digits of sum1 until you arrive at a single digit.

Return that single digit as output.

Note:

1. Array size ranges from 1 to 10.
2. All the array elements are lower case alphabets.
3. Atleast one common alphabet will be found in the arrays.

Example 1:

input1: {'a', 'b', 'c'}

input2: {'b', 'c'}

output: 8

Explanation:

'b' and 'c' are present in both the arrays.

ASCII value of 'b' is 98 and 'c' is 99.

$$98 + 99 = 197$$

$$1 + 9 + 7 = 17$$

$$1 + 7 = 8$$

For example:

| Input | Result |
|-------|--------|
| a b c | 8 |
| b c | |

Answer: (penalty regime: 0 %)

```

1 import java.util.HashSet;
2 import java.util.Set;
3
4 public class CommonAsciiSum {
5     public static int commonAsciiSingleDigitSum(char[] input1, char[] input2) {
6         Set<Character> set1 = new HashSet<>();
7         Set<Character> commonChars = new HashSet<>();
8
9         for (char c : input1) {
10             set1.add(c);
11         }
12         for (char c : input2) {
13             if (set1.contains(c)) {
14                 commonChars.add(c);
15             }
16         }
17
18         int sum1 = 0;
19         for (char c : commonChars) {
20             sum1 += (int) c;
21         }
22
23         while (sum1 >= 10) {
24             int tempSum = 0;
25             while (sum1 > 0) {
26                 tempSum += sum1 % 10;
27                 sum1 /= 10;
28             }
29             sum1 = tempSum;
30         }
31     }
32 }
```

```
30 }  
31  
32     return sum1;  
33 }  
34  
35 public static void main(String[] args) {  
36     char[] input1 = {'a', 'b', 'c'};  
37     char[] input2 = {'b', 'c'};  
38     System.out.println(commonAsciiSingleDigitSum(input1, input2)); // Output: 8  
39 }  
40 }  
41 }
```

| | Input | Expected | Got | |
|---|--------------|----------|-----|---|
| ✓ | a b c b c | 8 | 8 | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

Write a function that takes an input String (sentence) and generates a new String (modified sentence) by reversing the words in the original String, maintaining the words position.

In addition, the function should be able to control the reversing of the case (upper or lowercase) based on a case_option parameter, as follows:

If case_option = 0, normal reversal of words i.e., if the original sentence is "Wipro TechNologies BangaLore", the new reversed sentence should be "orpiW seigoloNhceT eroLagnaB".

If case_option = 1, reversal of words with retaining position's case i.e., if the original sentence is "Wipro TechNologies BangaLore", the new reversed sentence should be "Orpiw Seigolonhcet Erolagnab".

Note that positions 1, 7, 11, 20 and 25 in the original string are uppercase W, T, N, B and L.

Similarly, positions 1, 7, 11, 20 and 25 in the new string are uppercase O, S, O, E and G.

NOTE:

1. Only space character should be treated as the word separator i.e., "Hello World" should be treated as two separate words, "Hello" and "World". However, "Hello,World", "Hello;World", "Hello-World" or "Hello/World" should be considered as a single word.

2. Non-alphabetic characters in the String should not be subjected to case changes. For example, if case option = 1 and the original sentence is "Wipro TechNologies, Bangalore" the new reversed sentence should be "Orpiw ,seiGolonhceT Erolagnab". Note that comma has been treated as part of the word "Technologies," and when comma had to take the position of uppercase T it remained as a comma and uppercase T took the position of comma. However, the words "Wipro and Bangalore" have changed to "Orpiw" and "Erolagnab".

3. Kindly ensure that no extra (additional) space characters are embedded within the resultant reversed String.

Examples:

| S. No. | input1 | input2 | output |
|--------|-------------------------------|--------|-------------------------------|
| 1 | Wipro Technologies Bangalore | 0 | orpiW seigolonhceT eroLagnaB |
| 2 | Wipro Technologies, Bangalore | 0 | orpiW ,seigolonhceT eroLagnaB |
| 3 | Wipro Technologies Bangalore | 1 | Orpiw Seigolonhcet Erolagnab |
| 4 | Wipro Technologies, Bangalore | 1 | Orpiw ,seigolonhceT Erolagnab |

For example:

| Input | Result |
|------------------------------------|-------------------------------|
| Wipro Technologies Bangalore 0 | orpiW seigolonhceT eroLagnaB |
| Wipro Technologies, Bangalore 0 | orpiW ,seigolonhceT eroLagnaB |
| Wipro Technologies Bangalore 1 | Orpiw Seigolonhcet Erolagnab |
| Wipro Technologies, Bangalore 1 | Orpiw ,seigolonhceT Erolagnab |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2
3 public class SentenceReverser {
4     public static String reverseWords(String sentence, int caseOption) {
5         String[] words = sentence.split(" ");
6         StringBuilder reversedSentence = new StringBuilder();
7
8         for (String word : words) {
9             StringBuilder reversedWord = new StringBuilder(word).reverse();
10
11            if (caseOption == 1) {
12                for (int i = 0; i < word.length(); i++) {
13                    char originalChar = word.charAt(i);
14                    char reversedChar = reversedWord.charAt(i);
15
16                    if (Character.isUpperCase(originalChar)) {

```

```

17     }
18     }
19     }
20     }
21   }
22 }
23
24 if (reversedSentence.length() > 0) {
25   reversedSentence.append(" ");
26 }
27 reversedSentence.append(reversedWord);
28 }
29
30 return reversedSentence.toString();
31 }
32
33 public static void main(String[] args) {
34   Scanner scanner = new Scanner(System.in);
35
36   System.out.print("");
37   String inputSentence = scanner.nextLine();
38
39   System.out.print("");
40   int caseOption = scanner.nextInt();
41
42   String result = reverseWords(inputSentence, caseOption);
43   System.out.println("") + result);
44
45   scanner.close();
46 }
47 }
```

| | Input | Expected | Got | |
|---|------------------------------------|-------------------------------|-------------------------------|---|
| ✓ | Wipro Technologies Bangalore 0 | orpiW seigolonhceT erolagnaB | orpiW seigolonhceT erolagnaB | ✓ |
| ✓ | Wipro Technologies, Bangalore 0 | orpiW ,seigolonhceT erolagnaB | orpiW ,seigolonhceT erolagnaB | ✓ |
| ✓ | Wipro Technologies Bangalore 1 | Orpiw Seigolonhcet Erolagnab | Orpiw Seigolonhcet Erolagnab | ✓ |
| ✓ | Wipro Technologies, Bangalore 1 | Orpiw ,seigolonhceT Erolagnab | Orpiw ,seigolonhceT Erolagnab | ✓ |

Passed all tests! ✓

[◀ Lab-12-MCQ](#)

Jump to...



Identify possible words ►

JAVA MINI PROJECT

```

public class AdminDashBoard extends javax.swing.JFrame {

    /**
     * Creates new form AdminDashBoard
     */
    public AdminDashBoard() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:initComponents
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        btnTicketBooking = new javax.swing.JButton();
        btnTrainSchedule = new javax.swing.JButton();
        btnTrainFind = new javax.swing.JButton();
        btnFareEnquiry = new javax.swing.JButton();
        btnAddTrain = new javax.swing.JButton();
        btnPassengerDetails = new javax.swing.JButton();
        btnLogout = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 36)); // NOI18N
        jLabel1.setForeground(new java.awt.Color(0, 0, 204));
        jLabel1.setText("ADMIN DASHBORD");

        btnTicketBooking.setBackground(new java.awt.Color(51, 255, 255));
        btnTicketBooking.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
        btnTicketBooking.setForeground(new java.awt.Color(153, 0, 153));
        btnTicketBooking.setText("Ticket Booking");
        btnTicketBooking.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btnTicketBookingActionPerformed(evt);
            }
        });

        btnTrainSchedule.setBackground(new java.awt.Color(51, 255, 255));
        btnTrainSchedule.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
        btnTrainSchedule.setForeground(new java.awt.Color(153, 0, 153));
        btnTrainSchedule.setText("Train Schedule");
        btnTrainSchedule.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {

```

```
        btnTrainScheduleActionPerformed(evt);
    }
});

btnTrainFind.setBackground(new java.awt.Color(51, 255, 255));
btnTrainFind.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnTrainFind.setForeground(new java.awt.Color(153, 0, 153));
btnTrainFind.setText("Find Train");
btnTrainFind.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnTrainFindActionPerformed(evt);
    }
});

btnFareEnquiry.setBackground(new java.awt.Color(51, 255, 255));
btnFareEnquiry.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnFareEnquiry.setForeground(new java.awt.Color(153, 0, 153));
btnFareEnquiry.setText("Fare Enquiry");
btnFareEnquiry.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnFareEnquiryActionPerformed(evt);
    }
});

btnAddTrain.setBackground(new java.awt.Color(51, 255, 255));
btnAddTrain.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnAddTrain.setForeground(new java.awt.Color(153, 0, 153));
btnAddTrain.setText("Add Trains");
btnAddTrain.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnAddTrainActionPerformed(evt);
    }
});

btnPassengerDetails.setBackground(new java.awt.Color(51, 255, 255));
btnPassengerDetails.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnPassengerDetails.setForeground(new java.awt.Color(153, 0, 153));
btnPassengerDetails.setText("Passenger Details");
btnPassengerDetails.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnPassengerDetailsActionPerformed(evt);
    }
});

btnLogout.setBackground(new java.awt.Color(51, 255, 255));
btnLogout.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnLogout.setForeground(new java.awt.Color(153, 0, 153));
btnLogout.setText("Logout");
btnLogout.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```

        btnLogoutActionPerformed(evt);
    }
});

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addContainerGap(141, Short.MAX_VALUE)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addComponent(btnAddTrain,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 202,
                    javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnTrainFind,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 202,
                    javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnTicketBooking,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 379,
                    javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(224, 224, 224)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(btnTrainSchedule,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 202,
                        javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(btnFareEnquiry,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 202,
                        javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(btnPassengerDetails,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 202,
                        javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGroup(layout.createSequentialGroup()
                .addGap(329, 329, 329)
                .addComponent(jLabel1,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 467,
                    javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(layout.createSequentialGroup()
            .addGap(139, 139, 139))
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING,
            layout.createSequentialGroup()
                .addComponent(btnLogout,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 224,
                    javax.swing.GroupLayout.PREFERRED_SIZE)))
    );
);

```

```

        layout.linkSize(javax.swing.SwingConstants.HORIZONTAL, new
java.awt.Component[] {btnAddTrain, btnFareEnquiry, btnPassengerDetails,
btnTicketBooking, btnTrainFind, btnTrainSchedule});

        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addComponent(btnLogout)
                .addGap(27, 27, 27)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE,
57, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(35, 35, 35)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(btnTicketBooking,
javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnTrainSchedule,
javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(69, 69, 69)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(btnTrainFind,
javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnFareEnquiry,
javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(82, 82, 82)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(btnAddTrain,
javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnPassengerDetails,
javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addContainerGap(183, Short.MAX_VALUE))
        );
    }

    layout.linkSize(javax.swing.SwingConstants.VERTICAL, new
java.awt.Component[] {btnAddTrain, btnFareEnquiry, btnPassengerDetails,
btnTicketBooking, btnTrainFind, btnTrainSchedule});

    pack();
}// </editor-fold>//GEN-END:initComponents
// Button for performing actions
private void btnTicketBookingActionPerformed(java.awt.event.ActionEvent evt)

```

```

{ //GEN-FIRST:event_btnTicketBookingActionPerformed
    TicketBookingForm tbf = new TicketBookingForm();
    tbf.setVisible(true);
    this.dispose();
}

//GEN-LAST:event_btnTicketBookingActionPerformed

private void btnTrainScheduleActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_btnTrainScheduleActionPerformed
{
    TrainScheduleForm ts = new TrainScheduleForm();
    ts.setVisible(true);
    this.dispose();
} //GEN-LAST:event_btnTrainScheduleActionPerformed

private void btnTrainFindActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_btnTrainFindActionPerformed
{
    TrainBetweenStation tbs = new TrainBetweenStation();
    tbs.setVisible(true);
    this.dispose();
} //GEN-LAST:event_btnTrainFindActionPerformed

private void btnFareEnquiryActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_btnFareEnquiryActionPerformed
{
    TrainFareEnquiryForm tfq = new TrainFareEnquiryForm();
    tfq.setVisible(true);
    this.dispose();
} //GEN-LAST:event_btnFareEnquiryActionPerformed

private void btnAddTrainActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_btnAddTrainActionPerformed
{
    TrainsAdd ta = new TrainsAdd();
    ta.setVisible(true);
    this.dispose();
} //GEN-LAST:event_btnAddTrainActionPerformed

private void btnPassengerDetailsActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_btnPassengerDetailsActionPerformed
{
    PassengerDetailsForm pdf = new PassengerDetailsForm();
    pdf.setVisible(true);
    this.dispose();
} //GEN-LAST:event_btnPassengerDetailsActionPerformed

private void btnLogoutActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_btnLogoutActionPerformed
{
    HomeScreen hs = new HomeScreen();
    hs.setVisible(true);
    this.dispose();
} //GEN-LAST:event_btnLogoutActionPerformed

```

```

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton btnAddTrain;
private javax.swing.JButton btnFareEnquiry;
private javax.swing.JButton btnLogout;
private javax.swing.JButton btnPassengerDetails;
private javax.swing.JButton btnTicketBooking;
private javax.swing.JButton btnTrainFind;
private javax.swing.JButton btnTrainSchedule;
private javax.swing.JLabel jLabel1;
// End of variables declaration//GEN-END:variables
}

// Import packages
import java.awt.HeadlessException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;

public class AdminLogin extends javax.swing.JFrame {

    /**
     * Creates new form AdminLogin
     */
    public AdminLogin() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:initComponents
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtUserName = new javax.swing.JTextField();
        btnLogin = new javax.swing.JButton();
        btnCancel = new javax.swing.JButton();
        btnForgotPassword = new javax.swing.JButton();
        btnRegistration = new javax.swing.JButton();
        jScrollPane1 = new javax.swing.JScrollPane();

```

```
txtPasword = new javax.swing.JPasswordField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jLabel1.setFont(new java.awt.Font("Tahoma", 1, 36)); // NOI18N
jLabel1.setForeground(new java.awt.Color(0, 0, 204));
jLabel1.setText("ADMIN LOGIN");

jLabel2.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
jLabel2.setForeground(new java.awt.Color(204, 0, 51));
jLabel2.setText("User Name");

jLabel3.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
jLabel3.setForeground(new java.awt.Color(204, 0, 51));
jLabel3.setText("Password");

txtUserName.setForeground(new java.awt.Color(0, 153, 153));

btnLogin.setBackground(new java.awt.Color(51, 255, 255));
btnLogin.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnLogin.setForeground(new java.awt.Color(153, 0, 153));
btnLogin.setText("Login");
btnLogin.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnLoginActionPerformed(evt);
    }
});

btnCancel.setBackground(new java.awt.Color(51, 255, 255));
btnCancel.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnCancel.setForeground(new java.awt.Color(153, 0, 153));
btnCancel.setText("Cancel");
btnCancel.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnCancelActionPerformed(evt);
    }
});

btnForgotPassword.setBackground(new java.awt.Color(51, 255, 255));
btnForgotPassword.setFont(new java.awt.Font("Tahoma", 0, 12)); // NOI18N
btnForgotPassword.setForeground(new java.awt.Color(153, 0, 153));
btnForgotPassword.setText("Forget Password");
btnForgotPassword.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnForgotPasswordActionPerformed(evt);
    }
});

btnRegistration.setBackground(new java.awt.Color(51, 255, 255));
btnRegistration.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
```



```
javax.swing.GroupLayout.PREFERRED_SIZE, 133,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGroup(layout.createSequentialGroup()
        .addGap(162, 162, 162)
        .addComponent(btnForgotPassword,
javax.swing.GroupLayout.PREFERRED_SIZE, 210,
javax.swing.GroupLayout.PREFERRED_SIZE)))
    .addGap(134, 134, 134))
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(40, 40, 40)
        .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE,
45, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(61, 61, 61)
        .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE,
31, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(11, 11, 11)
        .addComponent(txtUserName,
javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(53, 53, 53)
        .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE,
31, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(13, 13, 13)
        .addComponent(txtPasword,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(80, 80, 80)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(1, 1, 1)
                .addComponent(btnLogin,
javax.swing.GroupLayout.PREFERRED_SIZE, 38,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addComponent(btnRegistration,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnCancel,
javax.swing.GroupLayout.PREFERRED_SIZE, 38,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(60, 60, 60)
            .addComponent(btnForgotPassword,
javax.swing.GroupLayout.PREFERRED_SIZE, 20,
```

```

        javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(90, Short.MAX_VALUE))
    );

    pack();
}// </editor-fold>//GEN-END:initComponents

private void btnRegistrationActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnRegistrationActionPerformed
    AdminSign_up sign = new AdminSign_up();
    sign.setVisible(true);
    this.setVisible(false);
}//GEN-LAST:event_btnRegistrationActionPerformed

private void btnForgotPasswordActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnForgotPasswordActionPerformed
    ForgetPassword fp = new ForgetPassword();
    fp.setVisible(true);
    this.setVisible(false);
}//GEN-LAST:event_btnForgotPasswordActionPerformed

private void btnCancelActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event.btnCancelActionPerformed
    HomeScreen hm = new HomeScreen();
    hm.setVisible(true);
    this.setVisible(false);
}//GEN-LAST:event.btnCancelActionPerformed

private void btnLoginActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_btnLoginActionPerformed
    int flag = -1;
    String strUserName = txtUserName.getText();
    String strPassword = txtPasword.getText();
    // Exception handling
    try {
        Class.forName("com.mysql.jdbc.Driver");
        //Statement statement = conn.createStatement();
        try (Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/railwaySystem?zeroDate
TimeBehavior=convertToNull", "root", ""));
        //Statement statement =
conn.createStatement();
        Statement statement =
conn.createStatement	ResultSet.TYPE_SCROLL_SENSITIVE,
ResultSet.CONCUR_UPDATABLE)) {
            String query = "SELECT * FROM login;";
            try (ResultSet result = statement.executeQuery(query)) {
                while (result.next()) {
                    String strUsernamlogin = result.getString("UserName");
                    String strPasswerdlogin = result.getString("Password");
                    if (strUserName.equals(strUsernamlogin) &&

```

```

        strPassword.equals(strPasswerdlogin)) {
            flag = 0;
            break;
        }
    }
}
if (flag != 0) {
    JOptionPane.showMessageDialog(this, "Invalid user name or password!!, you need to sign up!!");
    txtUserName.setText("");
    txtPasword.setText("");
} else {
    AdminDashBoard adb;
    adb = new AdminDashBoard();
    adb.setVisible(true);
    dispose();
}
}

} catch (HeadlessException | ClassNotFoundException | SQLException e) {
    System.out.println(e);
}
//GEN-LAST:event_btnLoginActionPerformed

```

```

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton btnCancel;
private javax.swing.JButton btnForgotPassword;
private javax.swing.JButton btnLogin;
private javax.swing.JButton btnRegistration;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JPasswordField txtPasword;
private javax.swing.JTextField txtUserName;
// End of variables declaration//GEN-END:variables
}

```

```

// Import packages
import java.awt.HeadlessException;
import java.awt.event.KeyEvent;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;

```

```
public class AdminSign_up extends javax.swing.JFrame {

    /**
     * Creates new form adminSign_up
     */
    public AdminSign_up() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:initComponents
    private void initComponents() {

        lblpwd = new javax.swing.JLabel();
        btnSignup = new javax.swing.JButton();
        txtcontact = new javax.swing.JTextField();
        txtuname = new javax.swing.JTextField();
        txtAddress = new javax.swing.JTextField();
        lbltitle = new javax.swing.JLabel();
        txtCity = new javax.swing.JTextField();
        lblname = new javax.swing.JLabel();
        cmbStateSelect = new javax.swing.JComboBox();
        lblcontact = new javax.swing.JLabel();
        txtPassword = new javax.swing.JPasswordField();
        lbladdress = new javax.swing.JLabel();
        btnCencel = new javax.swing.JButton();
        lblcity = new javax.swing.JLabel();
        lblstate = new javax.swing.JLabel();
        txtEmailID = new javax.swing.JTextField();
        lblEmil = new javax.swing.JLabel();
        txtUserName = new javax.swing.JTextField();
        lblcontact1 = new javax.swing.JLabel();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        lblpwd.setFont(new java.awt.Font("Ebrima", 1, 16)); // NOI18N
        lblpwd.setForeground(new java.awt.Color(255, 0, 0));
        lblpwd.setText("Enter Password");

        btnSignup.setBackground(new java.awt.Color(51, 255, 255));
        btnSignup.setFont(new java.awt.Font("Ebrima", 1, 18)); // NOI18N
        btnSignup.setForeground(new java.awt.Color(153, 0, 153));
        btnSignup.setText("Sign Up");
        btnSignup.setActionCommand("");

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(lblpwd)
                .addGap(18, 18, 18)
                .addComponent(btnSignup)
                .addGap(18, 18, 18)
                .addComponent(txtcontact)
                .addGap(18, 18, 18)
                .addComponent(txtuname)
                .addGap(18, 18, 18)
                .addComponent(txtAddress)
                .addGap(18, 18, 18)
                .addComponent(lbltitle)
                .addGap(18, 18, 18)
                .addComponent(txtCity)
                .addGap(18, 18, 18)
                .addComponent(lblname)
                .addGap(18, 18, 18)
                .addComponent(cmbStateSelect, javax.swing.GroupLayout.PREFERRED_SIZE, 150, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(18, 18, 18)
                .addComponent(lblcontact)
                .addGap(18, 18, 18)
                .addComponent(txtPassword)
                .addGap(18, 18, 18)
                .addComponent(lbladdress)
                .addGap(18, 18, 18)
                .addComponent(btnCencel)
                .addGap(18, 18, 18)
                .addComponent(lblcity)
                .addGap(18, 18, 18)
                .addComponent(lblstate)
                .addGap(18, 18, 18)
                .addComponent(txtEmailID)
                .addGap(18, 18, 18)
                .addComponent(lblEmil)
                .addGap(18, 18, 18)
                .addComponent(txtUserName)
                .addGap(18, 18, 18)
                .addComponent(lblcontact1)
                .addContainerGap())
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(lblpwd)
                    .addComponent(btnSignup)
                    .addComponent(txtcontact)
                    .addComponent(txtuname)
                    .addComponent(txtAddress)
                    .addComponent(lbltitle)
                    .addComponent(txtCity)
                    .addComponent(lblname)
                    .addComponent(cmbStateSelect, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(lblcontact)
                    .addComponent(txtPassword)
                    .addComponent(lbladdress)
                    .addComponent(btnCencel)
                    .addComponent(lblcity)
                    .addComponent(lblstate)
                    .addComponent(txtEmailID)
                    .addComponent(lblEmil)
                    .addComponent(txtUserName)
                    .addComponent(lblcontact1))
                .addContainerGap())
        );

        pack();
    }

    // Variables declaration - do not modify//GEN-END:variables
}
```

```

btnSignup.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnSignupActionPerformed(evt);
    }
});

txtcontact.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtcontact.setForeground(new java.awt.Color(0, 153, 153));
txtcontact.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyTyped(java.awt.event.KeyEvent evt) {
        txtcontactKeyTyped(evt);
    }
});

txtuname.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtuname.setForeground(new java.awt.Color(0, 153, 153));

txtAddress.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtAddress.setForeground(new java.awt.Color(0, 153, 153));

lbltitle.setFont(new java.awt.Font("Ebrima", 1, 36)); // NOI18N
lbltitle.setForeground(new java.awt.Color(0, 51, 204));
lbltitle.setText("NEW ENTRANT");

txtCity.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtCity.setForeground(new java.awt.Color(0, 153, 153));

lblname.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
lblname.setForeground(new java.awt.Color(255, 0, 0));
lblname.setText("Name");

cmbStateSelect.setBackground(new java.awt.Color(51, 255, 255));
cmbStateSelect.setFont(new java.awt.Font("Ebrima", 1, 18)); // NOI18N
cmbStateSelect.setForeground(new java.awt.Color(153, 0, 153));
cmbStateSelect.setModel(new javax.swing.DefaultComboBoxModel<>(new
String[] { "Andhra Pradesh", "Arunachal Pradesh", "Assam", "Bihar", "Chhattisgarh",
"Goa", "Gujarat", "Haryana", "Himachal Pradesh", "Jammu & Kashmir", "Jharkhand",
"Karnataka", "Kerala", "Madhya Pradesh", "Maharashtra", "Manipur", "Meghalay",
"Mizoram", "Nagaland", "Odisha", "Punjab", "Rajasthan", "Sikkim", "Tamil Nadu",
"Telangana", "Tripura", "Uttarakhand", "Uttar Pradesh", "West Bengal", "Delhi",
"Andaman & Nicobar Is.", "Chandigarh", "Dadra & Nagar Haveli", "Daman & Diu",
"Lakshdweep", "Puducherry" }));
cmbStateSelect.setActionCommand("");

lblcontact.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
lblcontact.setForeground(new java.awt.Color(255, 0, 0));
lblcontact.setText("Contact Details");

txtPassword.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
txtPassword.setForeground(new java.awt.Color(0, 153, 153));

```

```

lbladdress.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
lbladdress.setForeground(new java.awt.Color(255, 0, 0));
lbladdress.setText("Address");

btnCencel.setBackground(new java.awt.Color(51, 255, 255));
btnCencel.setFont(new java.awt.Font("Ebrima", 1, 18)); // NOI18N
btnCencel.setForeground(new java.awt.Color(153, 0, 153));
btnCencel.setText("Cancel");
btnCencel.setActionCommand("");
btnCencel.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnCencelActionPerformed(evt);
    }
});
});

lblcity.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
lblcity.setForeground(new java.awt.Color(255, 0, 0));
lblcity.setText("City");

lblstate.setFont(new java.awt.Font("Ebrima", 1, 16)); // NOI18N
lblstate.setForeground(new java.awt.Color(255, 0, 0));
lblstate.setText("State");

txtEmailID.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtEmailID.setForeground(new java.awt.Color(0, 153, 153));

lblEmil.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
lblEmil.setForeground(new java.awt.Color(255, 0, 0));
lblEmil.setText("Email ID");

txtUserName.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtUserName.setForeground(new java.awt.Color(0, 153, 153));

lblcontact1.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
lblcontact1.setForeground(new java.awt.Color(255, 0, 0));
lblcontact1.setText("User Name");

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(140, 140, 140)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(lblcontact1,
                javax.swing.GroupLayout.PREFERRED_SIZE, 160,
                javax.swing.GroupLayout.PREFERRED_SIZE)

```



```

        .addGroup(layout.createSequentialGroup()
            .addComponent(lblstate,
        javax.swing.GroupLayout.PREFERRED_SIZE, 140,
        javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(30, 30, 30)
            .addComponent(cmbStateSelect,
        javax.swing.GroupLayout.PREFERRED_SIZE,
        javax.swing.GroupLayout.DEFAULT_SIZE,
        javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(layout.createSequentialGroup()
            .addGap(228, 228, 228)
            .addComponent(btnSignup,
        javax.swing.GroupLayout.PREFERRED_SIZE, 155,
        javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(85, 85, 85)
            .addComponent(btnCencel,
        javax.swing.GroupLayout.PREFERRED_SIZE, 107,
        javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createSequentialGroup()
            .addGap(278, 278, 278)
            .addComponent(lbltitle,
        javax.swing.GroupLayout.PREFERRED_SIZE, 300,
        javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
);

layout.linkSize(javax.swing.SwingConstants.HORIZONTAL, new
java.awt.Component[] {lblEmil, lbladdress, lblcity, lblcontact, lblcontact1, lblname,
txtAddress, txtCity, txtEmailID, txtUserName, txtcontact, txtuname});

layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(12, 12, 12)
            .addComponent(lbltitle, javax.swing.GroupLayout.PREFERRED_SIZE, 50,
        javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
                .addComponent(txtuname,
        javax.swing.GroupLayout.PREFERRED_SIZE, 30,
        javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(lblname,
        javax.swing.GroupLayout.PREFERRED_SIZE, 42,
        javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(18, 18, 18)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
                .addComponent(lblcontact1,

```

```
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(txtUserName,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(30, 30, 30)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
.addComponent(lblcontact,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(txtcontact,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(20, 20, 20)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
.addComponent(lbladdress,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(txtAddress,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(20, 20, 20)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
.addComponent(lblEmil, javax.swing.GroupLayout.PREFERRED_SIZE,
30, javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(txtEmailID,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(30, 30, 30)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
.addComponent(lblcity, javax.swing.GroupLayout.PREFERRED_SIZE,
30, javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(txtCity, javax.swing.GroupLayout.PREFERRED_SIZE,
30, javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(18, 18, 18)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
.addComponent(lblstate, javax.swing.GroupLayout.PREFERRED_SIZE,
30, javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(cmbStateSelect,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(33, 33, 33)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
t.LEADING)
```

```

        .addComponent(lblpwd, javax.swing.GroupLayout.PREFERRED_SIZE,
30, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(txtPassword,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELAT
ED, 55, Short.MAX_VALUE)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen
t.LEADING)
            .addComponent(btnSignup,
javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(btnCencel,
javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(49, 49, 49))
);
layout.linkSize(javax.swing.SwingConstantsConstants.VERTICAL, new
java.awt.Component[] {lblEmil, lbladdress, lblcity, lblcontact, lblcontact1, lblname,
txtAddress, txtCity, txtEmailID, txtUserName, txtcontact, txtuname});
pack();
}// </editor-fold>//GEN-END:initComponents

private void btnSignupActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_btnSignupActionPerformed
int flag = -1;
String UserName = txtUserName.getText();
String name = txtuname.getText();
String contact = txtcontact.getText();
String address = txtAddress.getText();
String emailID = txtEmailID.getText();
String city = txtCity.getText();
String cmbstate = (String) cmbStateSelect.getSelectedItem();
String getPassword = txtPassword.getText();
String username = "root";
String password = "admin";
String url;

int answer = JOptionPane.showConfirmDialog(null, "Do you want to signup?");
if (answer == JOptionPane.YES_OPTION) {
    // Exception handling
    try {
        Class.forName("com.mysql.jdbc.Driver");
        //Statement statement = conn.createStatement();
        try (Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/railwaySystem?zeroDate
TimeBehavior=convertToNull", "root", ""));
//Statement statement =
conn.createStatement();

```

```

        Statement statement =
conn.createStatement	ResultSet.TYPE_SCROLL_SENSITIVE,
ResultSet.CONCUR_UPDATABLE) {
    String query = "SELECT * FROM login;";
    try (ResultSet result = statement.executeQuery(query)) {
        while (result.next()) {

            String strUserName = result.getString("UserName");
            if (UserName.equals(strUserName)) {

                JOptionPane.showMessageDialog(this, "Username
exists,please change it!!!");
                txtUserName.setText("");
                txtuname.setText("");
                txtcontact.setText("");
                txtAddress.setText("");
                txtEmailID.setText("");
                txtCity.setText("");
                txtPassword.setText("");
                flag = 0;
                break;
            }
        }
    }

    if (flag != 0) {
        try (Statement statement1 = conn.createStatement()) {
            String query1 = "INSERT into login(Name, Contact, Address,
Email, City, State, UserName, Password) VALUES('" + txtuname.getText() + "','" +
txtcontact.getText() + "','" + txtAddress.getText() + "','" + txtEmailID.getText() + "','" +
txtCity.getText() + "','" + cmbstate + "','" + txtUserName.getText() + "','" +
txtPassword.getText() + "');";
            statement1.executeUpdate(query1);
            AdminLogin al;
            al = new AdminLogin();
            al.setVisible(true);
            dispose();
        }
    }
}
} catch (HeadlessException | ClassNotFoundException | SQLException e) {
    System.out.println(e);
}
}
}

//GEN-LAST:event_btnSignupActionPerformed
// Action Buttons
private void btnCencelActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_btnCencelActionPerformed

```

```

        AdminLogin al = new AdminLogin();
        al.setVisible(true);
        this.setVisible(false);
    }//GEN-LAST:event_btnCencelActionPerformed

    private void txtcontactKeyTyped(java.awt.event.KeyEvent evt) {//GEN-FIRST:event_txtcontactKeyTyped
        char ch = evt.getKeyChar();
        if(!(Character.isDigit(ch) || (ch == KeyEvent.VK_BACK_SPACE) || ch == KeyEvent.VK_DELETE)){
            Toolkit.getDefaultToolkit().beep();
            evt.consume();
        }
    }//GEN-LAST:event_txtcontactKeyTyped

    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton btnCencel;
    private javax.swing.JButton btnSignup;
    private javax.swing.JComboBox<String> cmbStateSelect;
    private javax.swing.JLabel lblEmil;
    private javax.swing.JLabel lbladdress;
    private javax.swing.JLabel lblcity;
    private javax.swing.JLabel lblcontact;
    private javax.swing.JLabel lblcontact1;
    private javax.swing.JLabel lblname;
    private javax.swing.JLabel lblpwd;
    private javax.swing.JLabel lblstate;
    private javax.swing.JLabel lbltitle;
    private javax.swing.JTextField txtAddress;
    private javax.swing.JTextField txtCity;
    private javax.swing.JTextField txtEmailID;
    private javax.swing.JPasswordField txtPassword;
    private javax.swing.JTextField txtUserName;
    private javax.swing.JTextField txtcontact;
    private javax.swing.JTextField txtuname;
    // End of variables declaration//GEN-END:variables
}

```

```

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

// For database Connectivity
public class DatabaseConn {

    public static Connection getConnection() throws ClassNotFoundException {
        Connection conn = null;

```

```

// exception Handling
try {
    Class.forName("com.mysql.jdbc.Driver");
    conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/railwaySystem?zeroDate
TimeBehavior=convertToNull", "root", "");
} catch (ClassNotFoundException | SQLException e) {
    System.out.println(e);
}
return conn;
}

}

// Import Packages
import java.awt.HeadlessException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;
// Class implementing forgot password activity
public class ForgetPassword extends javax.swing.JFrame {

    /**
     * Creates new form ForgotPassword
     */
    public ForgetPassword() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN:initComponents
private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    txtUserName = new javax.swing.JTextField();
    txtEmailID = new javax.swing.JTextField();
    btnResetPassword = new javax.swing.JButton();
    btnCancel = new javax.swing.JButton();

```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
getContentPane().setLayout(null);

jLabel1.setFont(new java.awt.Font("Tahoma", 1, 36)); // NOI18N
jLabel1.setForeground(new java.awt.Color(0, 0, 255));
jLabel1.setText("FORGOT PASSWORD");
getContentPane().add(jLabel1);
jLabel1.setBounds(10, 11, 551, 57);

jLabel2.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
jLabel2.setForeground(new java.awt.Color(204, 0, 51));
jLabel2.setText("User Name");
getContentPane().add(jLabel2);
jLabel2.setBounds(10, 86, 194, 40);

jLabel3.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
jLabel3.setForeground(new java.awt.Color(204, 0, 51));
jLabel3.setText("Email ID");
getContentPane().add(jLabel3);
jLabel3.setBounds(10, 207, 194, 40);

txtUserName.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
txtUserName.setForeground(new java.awt.Color(0, 153, 153));
getContentPane().add(txtUserName);
txtUserName.setBounds(10, 137, 370, 40);

txtEmailID.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
txtEmailID.setForeground(new java.awt.Color(0, 153, 153));
getContentPane().add(txtEmailID);
txtEmailID.setBounds(10, 253, 370, 40);

btnResetPassword.setBackground(new java.awt.Color(51, 255, 255));
btnResetPassword.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnResetPassword.setForeground(new java.awt.Color(153, 0, 153));
btnResetPassword.setText("Reset Password");
btnResetPassword.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnResetPasswordActionPerformed(evt);
    }
});
getContentPane().add(btnResetPassword);
btnResetPassword.setBounds(10, 446, 194, 40);

btnCencel.setBackground(new java.awt.Color(51, 255, 255));
btnCencel.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnCencel.setForeground(new java.awt.Color(153, 0, 153));
btnCencel.setText("Cancel");
btnCencel.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```

        btnCencelActionPerformed(evt);
    }
});

getContentPane().add(btnCencel);
btnCencel.setBounds(319, 446, 194, 40);

pack();
}// </editor-fold>//GEN-END:initComponents
// Button action performed
private void btnCencelActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_btnCencelActionPerformed
    AdminLogin al = new AdminLogin();
    al.setVisible(true);
    this.setVisible(false);
}//GEN-LAST:event_btnCencelActionPerformed

private void btnResetPasswordActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnResetPasswordActionPerformed
    int flag = -1;
    String strUserName = txtUserName.getText();
    String strEmail = txtEmailID.getText();
    // Exceptional handling
    try {
        Class.forName("com.mysql.jdbc.Driver");
        try (Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/railwaySystem?zeroDate
TimeBehavior=convertToNull", "root", ""));
        Statement statement =
conn.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,
ResultSet.CONCUR_UPDATABLE)) {
            String query = "SELECT * FROM login;";
            try (ResultSet result = statement.executeQuery(query)) {
                while (result.next()) {
                    String strUsernamlogin = result.getString("UserName");
                    String strEmailID = result.getString("Email");
                    if (strUserName.equals(strUsernamlogin) &&
strEmail.equals(strEmailID)) {
                        flag = 0;
                        break;
                    }
                }
            }
        }
    }
    if (flag != 0) {
        JOptionPane.showMessageDialog(this, "Invalid user name or EmailID!!,
Please entr correct values!!");
        txtUserName.setText("");
        txtEmailID.setText("");
    } else {
        ResetPassword rsp;
        rsp = new ResetPassword();
    }
}

```

```

        rsp.setVisible(true);
        dispose();
    }

} catch (HeadlessException | ClassNotFoundException | SQLException e) {
    System.out.println(e);
}

}//GEN-LAST:event_btnResetPasswordActionPerformed

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton btnCencel;
private javax.swing.JButton btnResetPassword;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JTextField txtEmailID;
private javax.swing.JTextField txtUserName;
// End of variables declaration//GEN-END:variables
}

```

```

public class HomeScreen extends javax.swing.JFrame {

    /**
     * Creates new form RailwayRegestrationSystem
     */
    public HomeScreen() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
    BEGIN:initComponents
    private void initComponents() {

        jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();

```

```
jLabel4 = new javax.swing.JLabel();
jLabel5 = new javax.swing.JLabel();
jLabel6 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setBackground(new java.awt.Color(51, 255, 255));

jButton1.setBackground(new java.awt.Color(51, 255, 255));
jButton1.setFont(new java.awt.Font("Tahoma", 0, 12)); // NOI18N
jButton1.setForeground(new java.awt.Color(153, 0, 153));
jButton1.setText("Admin Login");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});
jButton2.setBackground(new java.awt.Color(51, 255, 255));
jButton2.setFont(new java.awt.Font("Tahoma", 0, 12)); // NOI18N
jButton2.setForeground(new java.awt.Color(153, 0, 153));
jButton2.setText("User Login");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

jLabel1.setFont(new java.awt.Font("Tahoma", 1, 36)); // NOI18N
jLabel1.setForeground(new java.awt.Color(0, 0, 255));
jLabel1.setText("Railway Reservation System");

jLabel2.setFont(new java.awt.Font("Tahoma", 2, 24)); // NOI18N
jLabel2.setForeground(new java.awt.Color(255, 102, 204));
jLabel2.setText("Facilities");

jLabel3.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
jLabel3.setForeground(new java.awt.Color(0, 153, 0));
jLabel3.setText("a) System helps to enquiry about trains ");

jLabel4.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
jLabel4.setForeground(new java.awt.Color(0, 153, 0));
jLabel4.setText("b) Booking of train tickets can be done using this system");

jLabel5.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
jLabel5.setForeground(new java.awt.Color(0, 153, 0));
jLabel5.setText("c) The train schedule can be check using this system");

jLabel6.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
jLabel6.setForeground(new java.awt.Color(0, 153, 0));
jLabel6.setText("d) The train route can be added using this system");
```

```
    javax.swing.GroupLayout layout = new
    javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jButton1,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 124,
                    javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(464, 464, 464)
                .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE,
                    124, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(10, 10, 10)
                .addComponent(jLabel1,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 578,
                    javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(57, 57, 57)
                .addComponent(jLabel2,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 187,
                    javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(57, 57, 57)
                .addComponent(jLabel3,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 275,
                    javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(57, 57, 57)
                .addComponent(jLabel4))
            .addGroup(layout.createSequentialGroup()
                .addGap(57, 57, 57)
                .addComponent(jLabel5,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 345,
                    javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(57, 57, 57)
                .addComponent(jLabel6,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 311,
                    javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponentContainerGap(293, Short.MAX_VALUE)))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
```

```

        .addGap(11, 11, 11)
        .addComponent(jButton1)
        .addGap(3, 3, 3)
        .addComponent(jButton2)
        .addGap(3, 3, 3)
        .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE,
40, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(27, 27, 27)
        .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE,
31, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE,
31, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(35, 35, 35)
        .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE,
31, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(36, 36, 36)
        .addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE,
34, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(40, 40, 40)
        .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE,
34, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(120, Short.MAX_VALUE))
    );
    pack();
}// </editor-fold>//GEN-END:initComponents

```

```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_jButton1ActionPerformed
    AdminLogin admin = new AdminLogin();
    admin.setVisible(true);
    this.setVisible(false);
}//GEN-LAST:event_jButton1ActionPerformed
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt){
    UserLogin user = new UserLogin();
    user.setVisible(true);
    this.setVisible(false);
}

/**
 * @param args the command line arguments
 */
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code
(optional) ">

```

```

/* If Nimbus (introduced in Java SE 6) is not available, stay with the default look
and feel.
 * For details
see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
*/
try {
    for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
        if ("Nimbus".equals(info.getName())) {
            javax.swing.UIManager.setLookAndFeel(info.getClassName());
            break;
        }
    }
} catch (ClassNotFoundException ex) {
    java.util.logging.Logger.getLogger(HomeScreen.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (InstantiationException ex) {
    java.util.logging.Logger.getLogger(HomeScreen.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (IllegalAccessException ex) {
    java.util.logging.Logger.getLogger(HomeScreen.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (javax.swing.UnsupportedLookAndFeelException ex) {
    java.util.logging.Logger.getLogger(HomeScreen.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
}
//</editor-fold>
//</editor-fold>

/* Create and display the form */
java.awt.EventQueue.invokeLater(new Runnable() {
    public void run() {
        new HomeScreen().setVisible(true);
    }
});
}

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JLabel jLabel6;
// End of variables declaration//GEN-END:variables
}

```

```
/*
 * To change this template, choose Tools | Templates
 * and open the template in the editor.
 */

/**
 *
 * @author ANEK
 */
class LocalTime {

    static LocalTime parse(String time1) {
        throw new UnsupportedOperationException("Not yet implemented");
    }
}

// Import packages
import java.awt.HeadlessException;
import java.awt.event.KeyEvent;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
public class PassengerDetailsForm extends javax.swing.JFrame {

    String AC1, AC2, AC3, SL, from1, to1, no, distance, type, seat1, name, arftime,
    deptime;
    static String PassName11;

    public PassengerDetailsForm() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */

```

```
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN:initComponents
private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    jLabel5 = new javax.swing.JLabel();
    jLabel7 = new javax.swing.JLabel();
    jLabel8 = new javax.swing.JLabel();
    jLabel9 = new javax.swing.JLabel();
    jLabel10 = new javax.swing.JLabel();
    txtTrainNumber = new javax.swing.JTextField();
    txtFrom = new javax.swing.JTextField();
    txtTo = new javax.swing.JTextField();
    txtPassengerName = new javax.swing.JTextField();
    txtAge = new javax.swing.JTextField();
    btnBookTicket = new javax.swing.JButton();
    btnResetForm = new javax.swing.JButton();
    cmbSeat = new javax.swing.JComboBox<>();
    txtGender = new javax.swing.JComboBox<>();
    btnBack = new javax.swing.JButton();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    setName(""); // NOI18N

    jLabel1.setFont(new java.awt.Font("Tahoma", 1, 36)); // NOI18N
    jLabel1.setForeground(new java.awt.Color(0, 0, 255));
    jLabel1.setText("PASSENGER DATAILS");

    jLabel2.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
    jLabel2.setForeground(new java.awt.Color(255, 0, 51));
    jLabel2.setText("Train Number");

    jLabel4.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
    jLabel4.setForeground(new java.awt.Color(255, 0, 51));
    jLabel4.setText("From");

    jLabel5.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
    jLabel5.setForeground(new java.awt.Color(255, 0, 51));
    jLabel5.setText("To");

    jLabel7.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
    jLabel7.setForeground(new java.awt.Color(255, 0, 51));
    jLabel7.setText("Seat Type");

    jLabel8.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
    jLabel8.setForeground(new java.awt.Color(255, 0, 51));
    jLabel8.setText("Name");
}
```

```
jLabel9.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
jLabel9.setForeground(new java.awt.Color(255, 0, 51));
jLabel9.setText("Gender");

jLabel10.setFont(new java.awt.Font("Tahoma", 1, 16)); // NOI18N
jLabel10.setForeground(new java.awt.Color(255, 0, 51));
jLabel10.setText("Age");

txtTrainNumber.setFont(new java.awt.Font("Tahoma", 0, 16)); // NOI18N
txtTrainNumber.setForeground(new java.awt.Color(0, 153, 153));
txtTrainNumber.setName(""); // NOI18N
txtTrainNumber.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyTyped(java.awt.event.KeyEvent evt) {
        txtTrainNumberKeyTyped(evt);
    }
});

txtFrom.setFont(new java.awt.Font("Tahoma", 0, 16)); // NOI18N
txtFrom.setForeground(new java.awt.Color(0, 153, 153));
txtFrom.setName(""); // NOI18N

txtTo.setFont(new java.awt.Font("Tahoma", 0, 16)); // NOI18N
txtTo.setForeground(new java.awt.Color(0, 153, 153));
txtTo.setName(""); // NOI18N

txtPassengerName.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
txtPassengerName.setForeground(new java.awt.Color(0, 153, 153));
txtPassengerName.setName(""); // NOI18N

txtAge.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
txtAge.setForeground(new java.awt.Color(0, 153, 153));
txtAge.setName(""); // NOI18N
txtAge.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyTyped(java.awt.event.KeyEvent evt) {
        txtAgeKeyTyped(evt);
    }
});

btnBookTicket.setBackground(new java.awt.Color(0, 255, 255));
btnBookTicket.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnBookTicket.setForeground(new java.awt.Color(153, 0, 153));
btnBookTicket.setText("Book Ticket");
btnBookTicket.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnBookTicketActionPerformed(evt);
    }
});

btnResetForm.setBackground(new java.awt.Color(0, 255, 255));
```

```

btnResetForm.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
btnResetForm.setForeground(new java.awt.Color(153, 0, 153));
btnResetForm.setText("Reset Form");
btnResetForm.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnResetFormActionPerformed(evt);
    }
});

cmbSeat.setBackground(new java.awt.Color(102, 255, 255));
cmbSeat.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
cmbSeat.setForeground(new java.awt.Color(153, 0, 153));
cmbSeat.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"AC1", "AC2", "AC3", "SL " }));

txtGender.setBackground(new java.awt.Color(102, 255, 255));
txtGender.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtGender.setForeground(new java.awt.Color(153, 0, 153));
txtGender.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"Male", "Female", "Other" }));

btnBack.setBackground(new java.awt.Color(51, 255, 255));
btnBack.setFont(new java.awt.Font("Tahoma", 1, 24)); // NOI18N
btnBack.setForeground(new java.awt.Color(153, 0, 153));
btnBack.setText("BACK");
btnBack.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnBackActionPerformed(evt);
    }
});

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addComponent(jLabel2,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 154,
                        javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(txtTrainNumber,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 154,
                        javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(488, 488, 488)
                .addComponent(jSeparator1,
                    javax.swing.GroupLayout.PREFERRED_SIZE, Short.MAX_VALUE)))
);
```

```
.addGroup(layout.createSequentialGroup()
    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED_SIZE, 470,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel4,
javax.swing.GroupLayout.PREFERRED_SIZE, 154,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtTo,
javax.swing.GroupLayout.PREFERRED_SIZE, 154,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGroup(layout.createSequentialGroup()
            .addComponent(jLabel8,
javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(87, 87, 87)
            .addComponent(jLabel10,
javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createSequentialGroup()
            .addComponent(txtPassengerName,
javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(87, 87, 87)
            .addComponent(txtAge,
javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addGroup(layout.createSequentialGroup()
                .addComponent(txtFrom,
javax.swing.GroupLayout.PREFERRED_SIZE, 154,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel5,
javax.swing.GroupLayout.PREFERRED_SIZE, 154,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(156, 156, 156)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel9,
javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(txtGender,
javax.swing.GroupLayout.PREFERRED_SIZE, 130,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addComponent(jLabel7,
javax.swing.GroupLayout.PREFERRED_SIZE, 154,
```

```
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(cmbSeat,
javax.swing.GroupLayout.PREFERRED_SIZE, 90,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(layout.createSequentialGroup()
            .addComponent(btnBookTicket,
javax.swing.GroupLayout.PREFERRED_SIZE, 160,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(120, 120, 120)
            .addComponent(btnResetForm,
javax.swing.GroupLayout.PREFERRED_SIZE, 160,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGap(0, 0, Short.MAX_VALUE))))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
            .addComponent(btnBack, javax.swing.GroupLayout.PREFERRED_SIZE,
164, javax.swing.GroupLayout.PREFERRED_SIZE))
    );
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addComponent(btnBack)
            .addGap(12, 12, 12)
            .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE,
45, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(44, 44, 44)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel7, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(8, 8, 8)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(txtTrainNumber,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(cmbSeat,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(30, 30, 30)
            .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(11, 11, 11)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

```

```
.addGroup(layout.createSequentialGroup()
    .addComponent(txtFrom,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(25, 25, 25)
    .addComponent(jLabel5,
javax.swing.GroupLayout.PREFERRED_SIZE, 26,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGroup(layout.createSequentialGroup()
        .addComponent(jLabel9,
javax.swing.GroupLayout.PREFERRED_SIZE, 23,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(txtGender,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)))
    .addGap(14, 14, 14)
    .addComponent(txtTo, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(54, 54, 54)
    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 23, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel10,
javax.swing.GroupLayout.PREFERRED_SIZE, 23,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGap(17, 17, 17)
    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(txtPassengerName,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtAge, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGap(57, 57, 57)
    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(btnBookTicket,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btnResetForm,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addContainerGap(87, Short.MAX_VALUE))
```

```

);
    pack();
}// </editor-fold>//GEN-END:initComponents

private void btnResetFormActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnResetFormActionPerformed
    txtFrom.setText("");
    txtTrainNumber.setText("");
    txtTo.setText("");
    txtPassengerName.setText("");
    txtAge.setText("");
}

{//GEN-LAST:event_btnResetFormActionPerformed
// Action buttons
private void btnBookTicketActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnBookTicketActionPerformed
    int flag = -1;
    String from = txtFrom.getText();
    String to = txtTo.getText();
    String trno = txtTrainNumber.getText();
    String seat = (String) cmbSeat.getSelectedItem();
    String gender = (String) txtGender.getSelectedItem();
    PassName11 = txtPassengerName.getText();
    // Exception handling
    try {
        Class.forName("com.mysql.jdbc.Driver");
        try (Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/railwaySystem?zeroDate
TimeBehavior=convertToNull", "root", ""));
        Statement statement =
conn.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,
ResultSet.CONCUR_UPDATABLE)) {

            String query = "SELECT * FROM traindetails WHERE StationFrom=" +
from + " AND StationTo= " + to + " AND TrainNO = " + trno + "";
            try (ResultSet result = statement.executeQuery(query)) {
                while (result.next()) {
                    from1 = result.getString("StationFrom");
                    to1 = result.getString("StationTo");
                    no = result.getString("TrainNo");
                    name = result.getString("Name");
                    distance = result.getString("Distance");
                    type = result.getString("TrainType");
                    arrtime = result.getString("ArrTime");
                    deptime = result.getString("DepTime");
                    switch (seat) {
                        case "AC1":
                            seat1 = result.getString("AC1Fare");
                            break;
                        case "AC2":
                    }
                }
            }
        }
    }
}
}

```

```

        seat1 = result.getString("AC2Fare");
        break;
    case "AC3":
        seat1 = result.getString("AC3Fare");
        break;
    case "SL":
        seat1 = result.getString("SLFare");
        break;
    default:
        break;
    }

    if (from.equals(from1) && to.equals(to1) && trno.equals(no)) {
        flag = 0;
        break;
    }
}

if (flag != 0) {
    JOptionPane.showMessageDialog(this, "This train not found!!, Please
enter other train!!");
} else {
    try (Statement statement1 = conn.createStatement()) {
        String sql1 = "TRUNCATE passrecord";
        statement1.executeUpdate(sql1);
        String sql = "DELETE FROM passrecord";
        statement1.executeUpdate(sql);
        String query1 = "INSERT into passrecord(pName, pGender, pAge,
pAction, StationFrom, StationTo, TrainNo, Distance, TrainType, SeetFare,
trainName,ArrTime,DepTime) VALUES(" + txtPassengerName.getText() + "," +
gender + "," + txtAge.getText() + "," + seat + "," + from1 + "," + to1 + "," + no +
"," + distance + "," + type + "," + seat1 + "," + name + "," + arrtime + "," +
deptime + ");";
        statement1.executeUpdate(query1);
        Ticket al;
        al = new Ticket();
        al.setVisible(true);
        this.setVisible(false);
    }
}
}

} catch (HeadlessException | ClassNotFoundException | SQLException e) {
    System.out.println(e);
}

}//GEN-LAST:event_btnBookTicketActionPerformed

private void txtTrainNumberKeyTyped(java.awt.event.KeyEvent evt) {//GEN-FIRST:event_txtTrainNumberKeyTyped

```

```

        char ch = evt.getKeyChar();
        if (!(Character.isDigit(ch) || (ch == KeyEvent.VK_BACK_SPACE) || ch ==
KeyEvent.VK_DELETE)) {
            Toolkit.getDefaultToolkit().beep();
            evt.consume();
        }
    }//GEN-LAST:event_txtTrainNumberKeyTyped

    private void btnBackActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_btnBackActionPerformed
        AdminDashBoard pdf = new AdminDashBoard();
        pdf.setVisible(true);
        this.dispose();
    }//GEN-LAST:event_btnBackActionPerformed

    private void txtAgeKeyTyped(java.awt.event.KeyEvent evt) {//GEN-FIRST:event_txtAgeKeyTyped
        char ch = evt.getKeyChar();
        if (!(Character.isDigit(ch) || (ch == KeyEvent.VK_BACK_SPACE) || ch ==
KeyEvent.VK_DELETE)) {
            Toolkit.getDefaultToolkit().beep();
            evt.consume();
        }
    }//GEN-LAST:event_txtAgeKeyTyped

    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton btnBack;
    private javax.swing.JButton btnBookTicket;
    private javax.swing.JButton btnResetForm;
    private javax.swing.JComboBox<String> cmbSeat;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel10;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel7;
    private javax.swing.JLabel jLabel8;
    private javax.swing.JLabel jLabel9;
    private javax.swing.JTextField txtAge;
    private javax.swing.JTextField txtFrom;
    private javax.swing.JComboBox<String> txtGender;
    private javax.swing.JTextField txtPassengerName;
    private javax.swing.JTextField txtTo;
    private javax.swing.JTextField txtTrainNumber;
    // End of variables declaration//GEN-END:variables
}

```

```

// Import packages
import java.awt.HeadlessException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;

public class ResetPassword extends javax.swing.JFrame {

    /**
     * Creates new form ResetPassword
     */
    public ResetPassword() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:initComponents
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        jLabel4 = new javax.swing.JLabel();
        jLabel5 = new javax.swing.JLabel();
        txtUserName = new javax.swing.JTextField();
        txtEmail = new javax.swing.JTextField();
        txtNewPassword = new javax.swing.JTextField();
        txtConfirmPassword = new javax.swing.JTextField();
        btnResetPassword = new javax.swing.JButton();
        btnCancel = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 36)); // NOI18N
        jLabel1.setForeground(new java.awt.Color(0, 0, 255));
        jLabel1.setText("Reset Your Password");

        jLabel2.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
        jLabel2.setForeground(new java.awt.Color(255, 0, 0));
        jLabel2.setText("User Name");
    }
}

```

```

jLabel3.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jLabel3.setForeground(new java.awt.Color(255, 0, 0));
jLabel3.setText("Email ID");

jLabel4.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jLabel4.setForeground(new java.awt.Color(255, 0, 0));
jLabel4.setText("New PassWord");

jLabel5.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jLabel5.setForeground(new java.awt.Color(255, 0, 0));
jLabel5.setText("Confirm Password");

txtUserName.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtUserName.setForeground(new java.awt.Color(0, 153, 153));

txtEmail.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtEmail.setForeground(new java.awt.Color(0, 153, 153));

txtNewPassword.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtNewPassword.setForeground(new java.awt.Color(0, 153, 153));

txtConfirmPassword.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
txtConfirmPassword.setForeground(new java.awt.Color(0, 153, 153));

btnResetPassword.setBackground(new java.awt.Color(51, 255, 255));
btnResetPassword.setFont(new java.awt.Font("Tahoma", 1, 24)); // NOI18N
btnResetPassword.setForeground(new java.awt.Color(153, 0, 153));
btnResetPassword.setText("RESET PASSWORD");
btnResetPassword.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnResetPasswordActionPerformed(evt);
    }
});
btnResetPassword.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnResetPasswordActionPerformed(evt);
    }
});

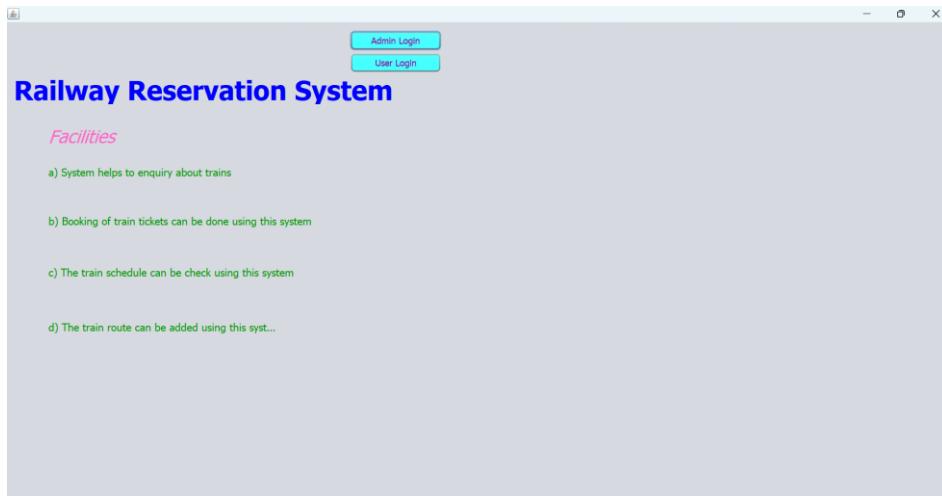
btnCancel.setBackground(new java.awt.Color(51, 255, 255));
btnCancel.setFont(new java.awt.Font("Tahoma", 1, 24)); // NOI18N
btnCancel.setForeground(new java.awt.Color(153, 0, 153));
btnCancel.setText("Cancel");

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(45, 45, 45)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jLabel3)
            .addComponent(jLabel4)
        )
    )
);

```

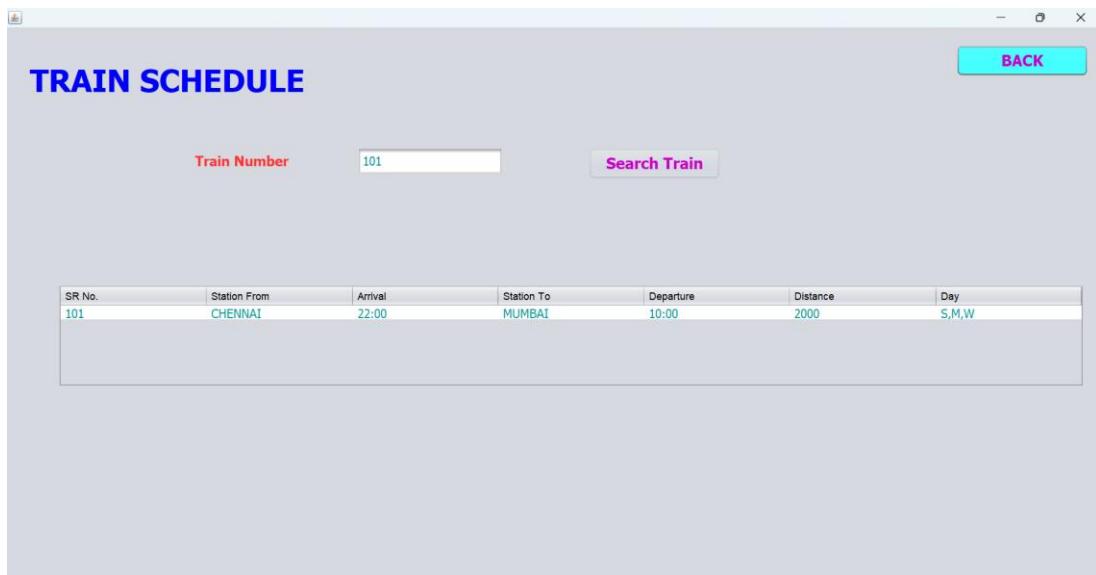
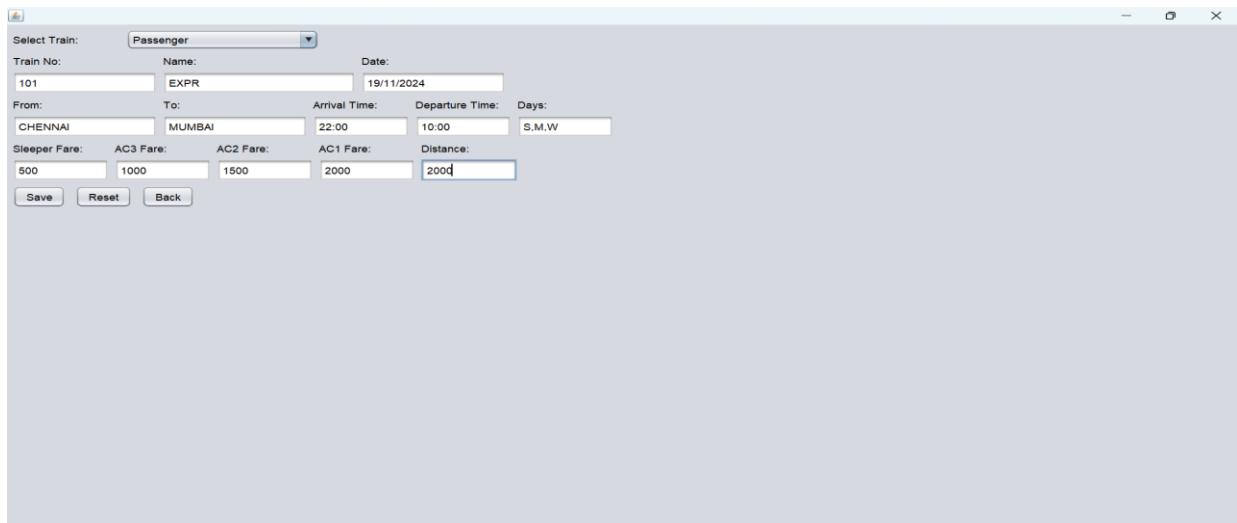
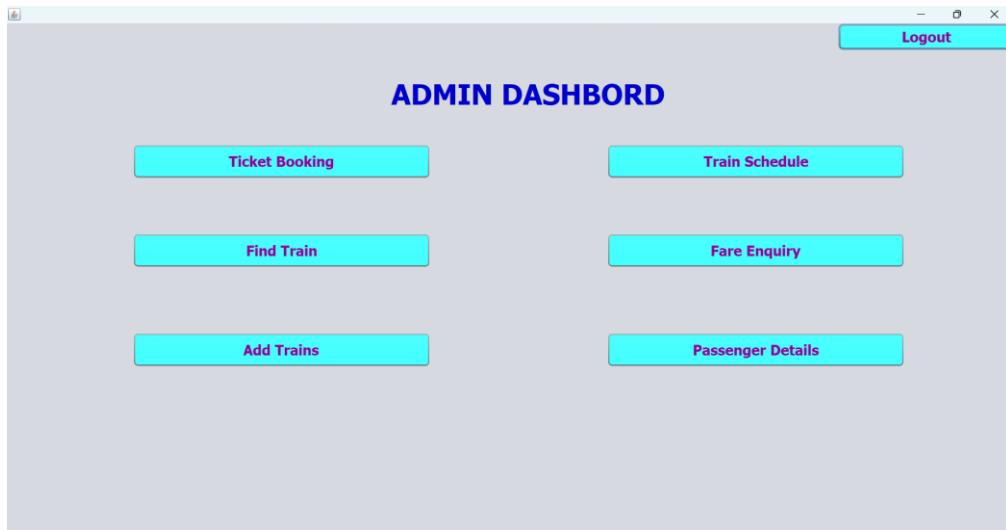
```
        .addComponent(jLabel5)
        .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE,
289, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELAT
ED, 102, Short.MAX_VALUE)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen
t.LEADING)
            .addComponent(txtConfirmPassword,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(txtNewPassword,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(txtEmail,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(txtUserName,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(271, 271, 271))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen
t.LEADING)
                .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                    .addComponent(btnResetPassword,
javax.swing.GroupLayout.PREFERRED_SIZE, 286,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(81, 81, 81)
                    .addComponent(btnCancel,
javax.swing.GroupLayout.PREFERRED_SIZE, 151,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(216, 216, 216))
                .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                    .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED_SIZE, 585,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(174, 174, 174))))
            .addContainerGap())
    );
    layout.linkSize(javax.swing.SwingConstants.HORIZONTAL, new
java.awt.Component[] {jLabel2, jLabel3, jLabel4, jLabel5, txtConfirmPassword,
```

```
txtEmail, txtNewPassword, txtUserName));  
  
layout.setVerticalGroup(  
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
        .addGroup(layout.createSequentialGroup()  
            .addGap(21, 21, 21)  
            .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE,  
45, javax.swing.GroupLayout.PREFERRED_SIZE)  
            .addGap(48, 48, 48)  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen  
t.LEADING)  
                .addComponent(txtUserName,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE,  
44, javax.swing.GroupLayout.PREFERRED_SIZE))  
                .addGap(47, 47, 47)  
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen  
t.LEADING)  
                    .addComponent(jLabel3)  
                    .addComponent(txtEmail,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
                    .addGap(64, 64, 64)  
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen  
t.BAS  
...  
...
```



The screenshot shows a registration form titled "NEW ENTRANT". The form consists of several text input fields and dropdown menus. The fields are labeled in red text, and their corresponding values are shown in the adjacent input fields.

| | |
|-----------------|---------------|
| Name | Hari |
| User Name | H10 |
| Contact Details | 12345678 |
| Address | address |
| Email ID | h10@gmail.com |
| City | Chennai |
| State | Tamil Nadu |



NEW USER

| | |
|--|--------------|
| Name | RAM |
| User Name | R7 |
| Contact Details | 12345678 |
| Address | ADDRESS |
| Email ID | R7@gmail.com |
| City | CHENNAI |
| State | Tamil Nadu |
| Enter Password | ** |
| <input type="button" value="Sign Up"/> <input type="button" value="Cancel"/> | |

USER LOGIN

| | |
|--|-------------------------------------|
| User Name | <input type="text" value="R7"/> |
| Password | <input type="password" value="**"/> |
| <input type="button" value="Login"/> <input type="button" value="Registration"/> <input type="button" value="Cancel"/> | |
| <small>Forgot Password</small> | |

TICKET BOOKING

| | | |
|---|-------------------------------------|---|
| FROM | TO | JOURNEY DATE |
| <input type="text" value="CHENNAI"/> | <input type="text" value="MUMBAI"/> | <input type="text" value="19/11/2024"/> |
| <input type="button" value="SEARCH"/> <input type="button" value="BACK"/> | | |

PASSENGER DATA

| | |
|--------------|-----------|
| Train Number | Seat Type |
| 101 | AC1 |
| From | Gender |
| CHENNAI | Male |
| To | |
| MUMBAI | |
| Name | Age |
| RAM | 20 |

Book Ticket **Reset Form**

Booked Ticket

| Train Name | EXPR | Train No | 101 | Train Type | Passenger |
|------------|---------|------------|----------------|------------|-----------|
| Pass Name | RAM | Age | 20 | Gender | Male |
| From | To | | Total Distance | Seat Type | |
| CHENNAI | MUMBAI | | 2000 | AC1 | |
| Departure | Arrived | | | | |
| 10:00 | 22:00 | | | | |
| | | Total Fare | 2000 | | |