

For Q.1 to Q.6 code reference (CoreJava.java)

For Q.7 (CoreJava1.java)

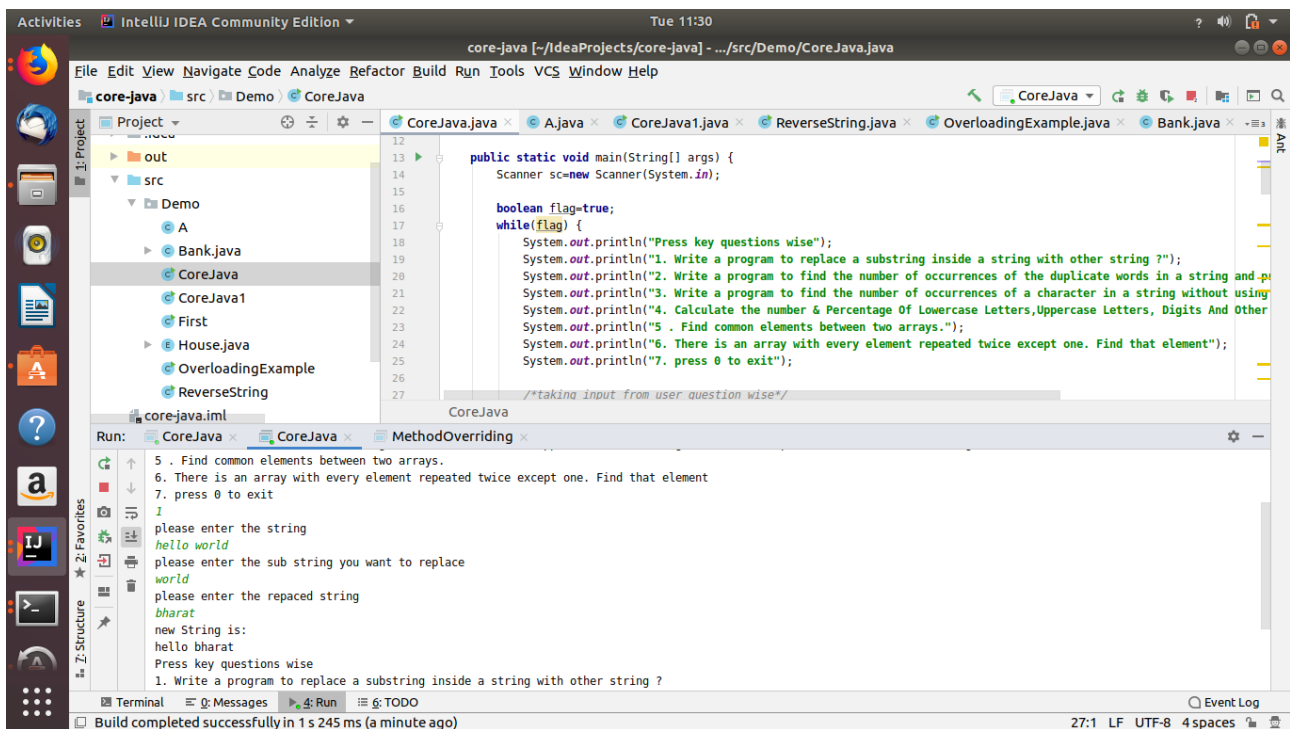
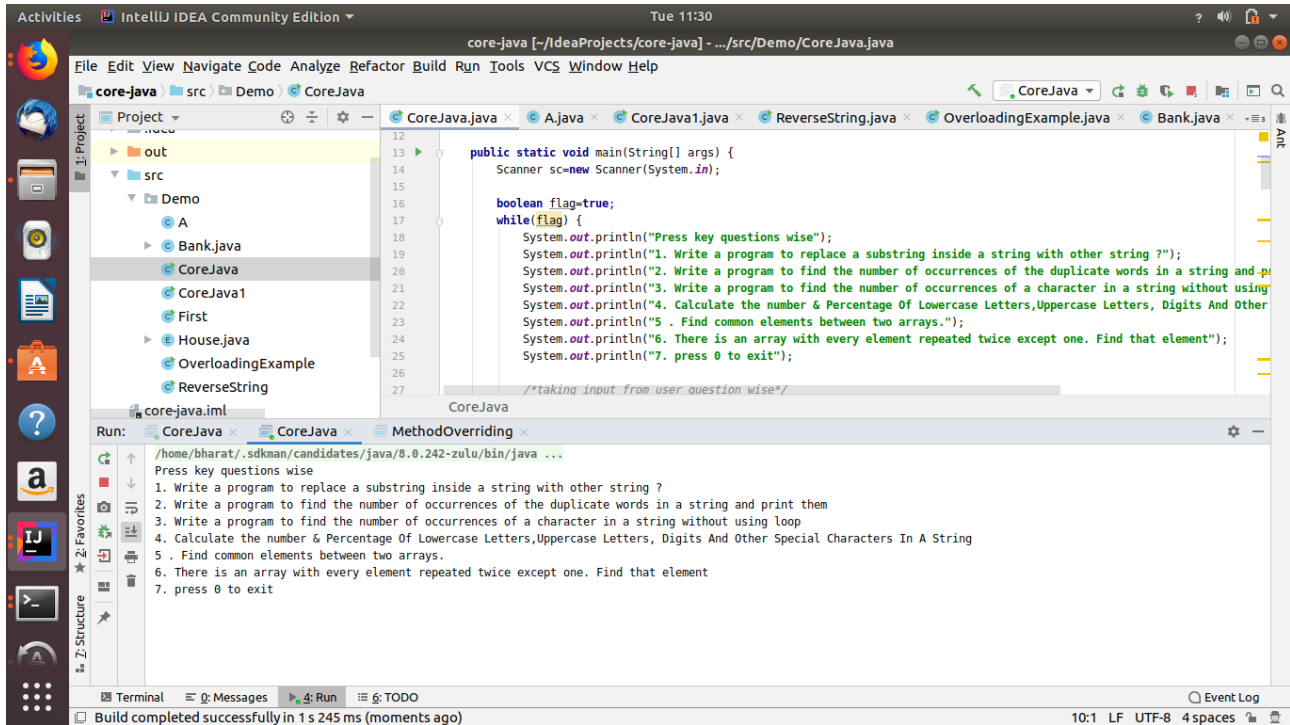
For Q.8 (ReverseString.java)

For Q.9 (House.java)

For Q.10 (OverloadingExample.java)

For Q.11(Bank.java)

Q.1 Write a program to replace a substring inside a string with other string ?



Q.2 Write a program to find the number of occurrences of the duplicate words in a string and print them ?

The screenshot shows the IntelliJ IDEA interface with the following components:

- Project Structure:** A project named 'core-java' with a 'src' directory containing a 'Demo' package. The 'Demo' package includes files: 'A', 'Bank.java', 'CoreJava', 'CoreJava1', 'First', 'House.java', 'OverloadingExample', and 'ReverseString'.
- Code Editor:** The 'CoreJava.java' file is open, showing the following code:


```
String n1 = sc.nextLine();
/* method call to find duplicates*/
findDuplicates(n1);
break;

case 3:
    System.out.println("please enter the string");
    String a3 = sc.nextLine();
    System.out.println("please enter the character you want to search the occurrence ");
    char character = sc.next().charAt(0);

    /*method call to find count of a character*/
    wordcount(a3, character);
    break;

case 4:
    CoreJava > main()
```
- Run Console:** The output shows the program execution:


```
enter the String
hello bharat hello
Duplicate words in a given string :
hello : 2
Press key questions wise
1. Write a program to replace a substring inside a string with other string ?
2. Write a program to find the number of occurrences of the duplicate words in a string and print them
3. Write a program to find the number of occurrences of a character in a string without using loop
4. Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String
5. Find common elements between two arrays.
6. There is an array with every element repeated twice except one. Find that element
7. press 0 to exit
```
- Status Bar:** Indicates 'Build completed successfully in 1 s 245 ms (5 minutes ago)'.

Q.3 Write a program to find the number of occurrences of a character in a string without using loop?

The screenshot shows the IntelliJ IDEA interface with the following components:

- Project Structure:** The same 'core-java' project structure as in the previous screenshot.
- Code Editor:** The 'CoreJava.java' file is open, showing the following code:


```
method to calculate single occurrence element
*/
private static void findSingleOccurrenceElement(int[] arr6) {
    int element=arr6[0];
    for (int i = 1; i < arr6.length; i++) {
        element=element ^ arr6[i];
        // System.out.println(arr6[i]);
    }
    System.out.println("Element occurred one time is " +element);
}

/*
0.5
* find common elements between two array
*/
CoreJava > findSingleOccurrenceElement()
```
- Run Console:** The output shows the program execution:


```
please enter the string
bharat
please enter the character you want to search the occurrence
a
Number of occurrences of a in bharat is 2
Press key questions wise
1. Write a program to replace a substring inside a string with other string ?
2. Write a program to find the number of occurrences of the duplicate words in a string and print them
3. Write a program to find the number of occurrences of a character in a string without using loop
4. Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String
5. Find common elements between two arrays.
6. There is an array with every element repeated twice except one. Find that element
7. press 0 to exit
```
- Status Bar:** Indicates 'Build completed successfully in 1 s 270 ms (moments ago)'.

Q.4 Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String.

The screenshot shows the IntelliJ IDEA interface with the 'Run' window open. The program has executed successfully, displaying the following output:

```

number of upper case letter are :1 and percentage is : 10.0%
number of lower case letter are : 5 and percentage is : 50.0%
number of digits are : 3 and percentage is : 30.000002%
number of special character letter are : 1 and percentage is : 10.0%
Press key questions wise
1. Write a program to replace a substring inside a string with other string ?
2. Write a program to find the number of occurrences of the duplicate words in a string and print them
3. Write a program to find the number of occurrences of a character in a string without using loop
4. Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String
5. Find common elements between two arrays.
6. There is an array with every element repeated twice except one. Find that element
7. press 0 to exit

```

Q.5 Find common elements between two arrays.

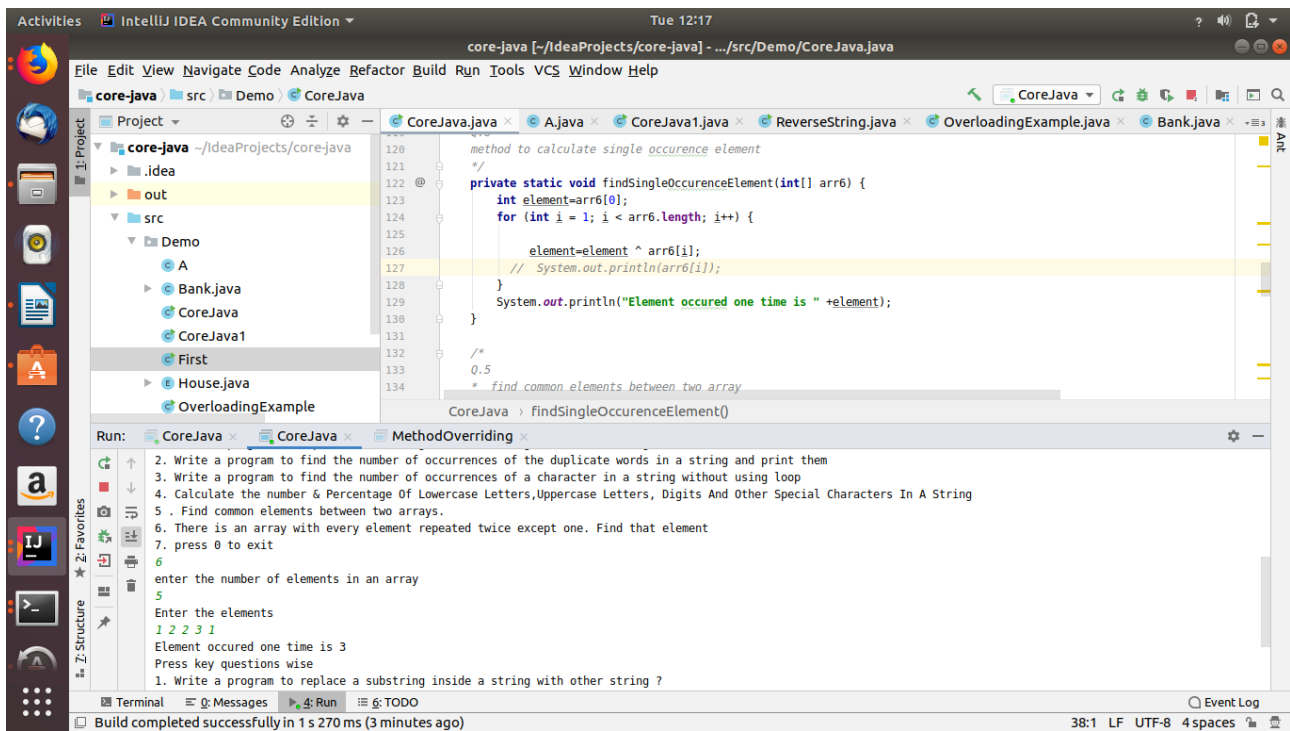
The screenshot shows the IntelliJ IDEA interface with the 'Run' window open. The program has executed successfully, displaying the following output:

```

5. Find common elements between two arrays.
6. There is an array with every element repeated twice except one. Find that element
7. press 0 to exit
5
enter the number of elements
4
enter the elements in first array
1 2 3 4
enter the elements in second array
2 4 5 6
Common word2
Common word4
Press key questions wise
1. Write a program to replace a substring inside a string with other string ?

```

Q.6 There is an array with every element repeated twice except one. Find that element



The screenshot shows the IntelliJ IDEA Community Edition interface. The main editor displays a Java file named `CoreJava.java` with the following code:

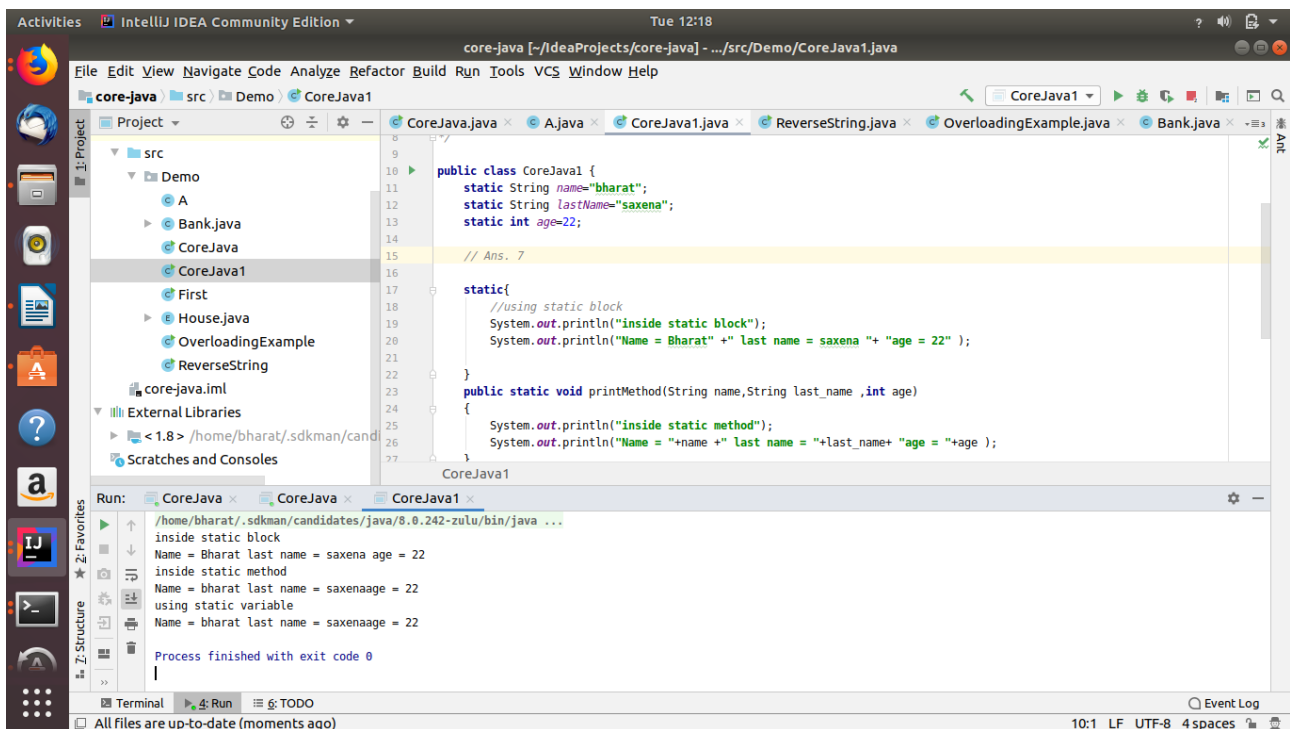
```
120  method to calculate single occurrence element
121  /**
122  @
123  private static void findSingleOccurrenceElement(int[] arr6) {
124      int element=arr6[0];
125      for (int i = 1; i < arr6.length; i++) {
126          element=element ^ arr6[i];
127          // System.out.println(arr6[i]);
128      }
129      System.out.println("Element occurred one time is " +element);
130  }
131
132  /**
133  0.5
134  * find common elements between two array
135  CoreJava > findSingleOccurrenceElement()
```

The Run window shows the output of the program:

```
2. Write a program to find the number of occurrences of the duplicate words in a string and print them
3. Write a program to find the number of occurrences of a character in a string without using loop
4. Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String
5 . Find common elements between two arrays.
6. There is an array with every element repeated twice except one. Find that element
7. press 0 to exit
6
enter the number of elements in an array
5
Enter the elements
1 2 2 3 1
Element occurred one time is 3
Press key questions wise
1. Write a program to replace a substring inside a string with other string ?
```

The status bar at the bottom indicates "Build completed successfully in 1 s 270 ms (3 minutes ago)" and "38:1 LF UTF-8 4 spaces".

Q.7 Write a program to print your Firstname,LastName & age using static block,static method & static variable respectively



The screenshot shows the IntelliJ IDEA Community Edition interface. The main editor displays a Java file named `CoreJava1.java` with the following code:

```
8
9
10 public class CoreJava1 {
11     static String name="bharat";
12     static String lastName="saxena";
13     static int age=22;
14
15     // Ans. 7
16
17     static{
18         //using static block
19         System.out.println("inside static block");
20         System.out.println("Name = Bharat" + " last name = saxena " + "age = 22" );
21     }
22     public static void printMethod(String name,String last_name ,int age)
23     {
24         System.out.println("inside static method");
25         System.out.println("Name = "+name + " last name = "+last_name+ "age = "+age );
26     }
27 }
```

The Run window shows the output of the program:

```
/home/bharat/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
inside static block
Name = Bharat last name = saxena age = 22
inside static method
Name = bharat last name = saxenaage = 22
using static variable
Name = bharat last name = saxenaage = 22
Process finished with exit code 0
```

The status bar at the bottom indicates "All files are up-to-date (moments ago)" and "10:1 LF UTF-8 4 spaces".

Q.8 Write a program to reverse a string and remove character from index 4 to index 9 from the reversed string using String Buffer

The screenshot shows the IntelliJ IDEA interface with the `ReverseString.java` file open. The code is as follows:

```

public class ReverseString {
    /* ans no 8*/

    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("please enter string of");
        String a=sc.nextLine();
        StringBuffer stringBuffer=new StringBuffer(a);
        StringBuffer reverse=stringBuffer.reverse();
        System.out.println(reverse);
        StringBuffer sb=reverse.replace( start: 4, end: 9, str: "");
        System.out.println(sb);
    }
}

```

The Run window shows the following output:

```

please enter string of
hello bharat
tarahb olleh
taraleh
Process finished with exit code 0

```

Q.9 .Write a program to display values of enums using a constructor & getPrice() method (Example display house & their prices)

The screenshot shows the IntelliJ IDEA interface with the `House.java` file open. The code is as follows:

```

int getPrice(){
    return price;
}

class Enum{
    public static void main(String[] args) {
        // System.out.println("Houses price are: ");
        for (House h:House.values()) {
            System.out.println(h + " cost is :"+h.getPrice());
        }
    }
}

```

The Run window shows the following output:

```

house1 cost is :10
house2 cost is :11
house3 cost is :12
house4 cost is :13
house5 cost is :14
Process finished with exit code 0

```

Q.10 Write a single program for following operation using overloading

- A) Adding 2 integer number
- B) Adding 2 double
- C) multiplying 2 float
- D) multiplying 2 int
- E) concate 2 string
- F) Concate 3 String

```

package Demo;

/*
 * Created by
 * bharat
 * on 17/02/20
 */

public class OverloadingExample {

    // Ans no 10
    public static void add(int a,int b)
    {
        System.out.println(a+b);
    }

    public static void add(double a,double b)
    {
        System.out.println(a+b);
    }
}

```

Run: CoreJava x CoreJava x OverloadingExample x

/home/bharat/.sdkman/candidates/java/8.0.242-zulu/bin/java ...

3
2.66
6
4.62
helloworld
helloworldagain

Process finished with exit code 0

Q.11 Create 3 sub class of bank SBI,BOI,ICICI all 4 should have method called getDetails which provide there specific details like rateofinterest etc,print details of every banks

```

class BOI extends Bank{
    public void getDetails(double r,String a)
    {
        System.out.println("Welcome to BOI");
        System.out.println("rate of interest is "+r+"%");
        System.out.println("Main Branch is in "+a);
        System.out.println("-----");
    }
}

class MethodOverriding{
    public static void main(String args[]){
        SBI s=new SBI();
        ICICI i=new ICICI();
        BOI b=new BOI();
        s.getDetails(10, "Mumbai");
        b.getDetails()
    }
}

```

Run: CoreJava x CoreJava x MethodOverriding x

/home/bharat/.sdkman/candidates/java/8.0.242-zulu/bin/java ...

Welcome to sbi bank
rate of interest is 10.0%
Main Branch is in Mumbai

Welcome to ICICI
rate of interest is 11.0%
Main Branch is in delhi

Welcome to BOI
rate of interest is 9.0%
Main Branch is in Bangalore
