

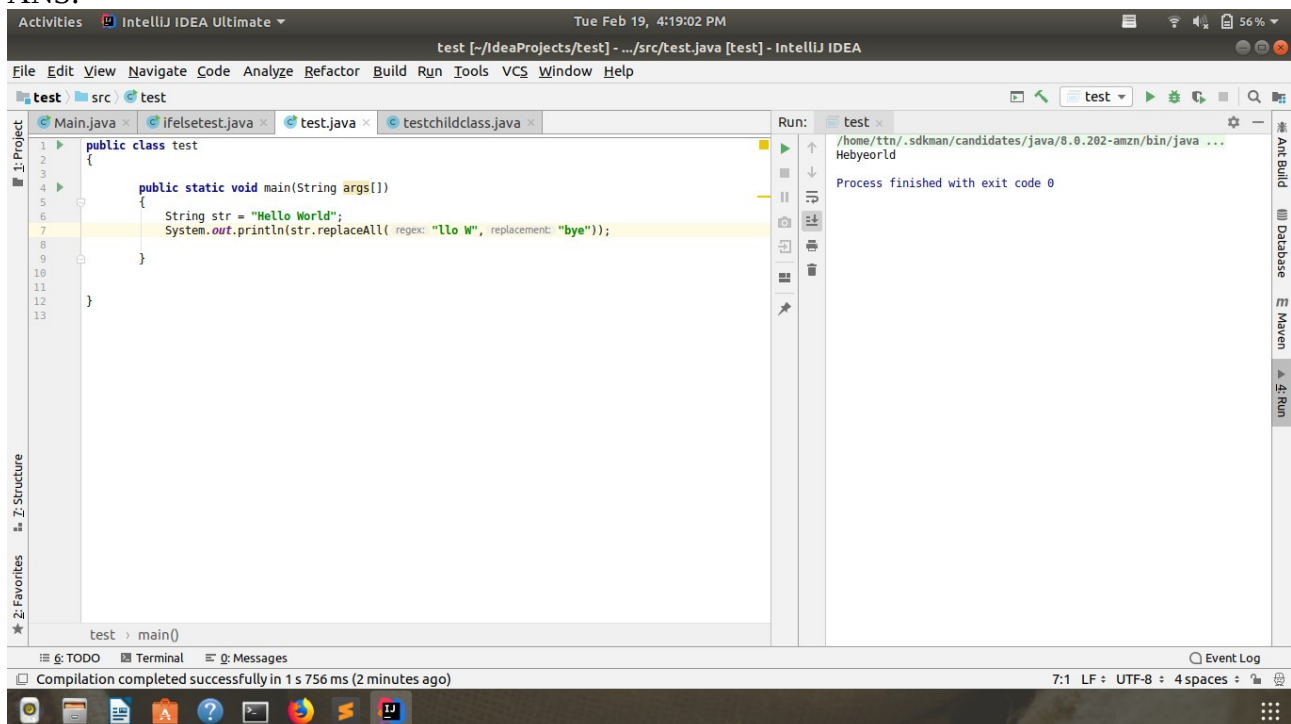
ASSIGNMENT ON JAVA1

- Q1. Write a program to replace a substring inside a string with other string ?
- Q2. Write a program to find the number of occurrences of the duplicate words in a string and print them ?
- Q3. Write a program to find the number of occurrences of a character in a string without using loop?
- Q4. Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String
- Q5. Find common elements between two arrays.
- Q6. There is an array with every element repeated twice except one. Find that element
- Q7. Write a program to print your Firstname,LastName & age using static block,static method & static variable respectively
- Q8. Write a program to reverse a string and remove character from index 4 to index 9 from the reversed string using String Buffer
- Q9. Write a program to display values of enums using a constructor & getPrice() method (Example display house & their prices)
- Q10. 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) concatenate 2 string
 - F) Concatenate 3 String
- Q11. 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

ANSWERS

Q1] Write a program to replace a substring inside a string with other string ?

ANS.

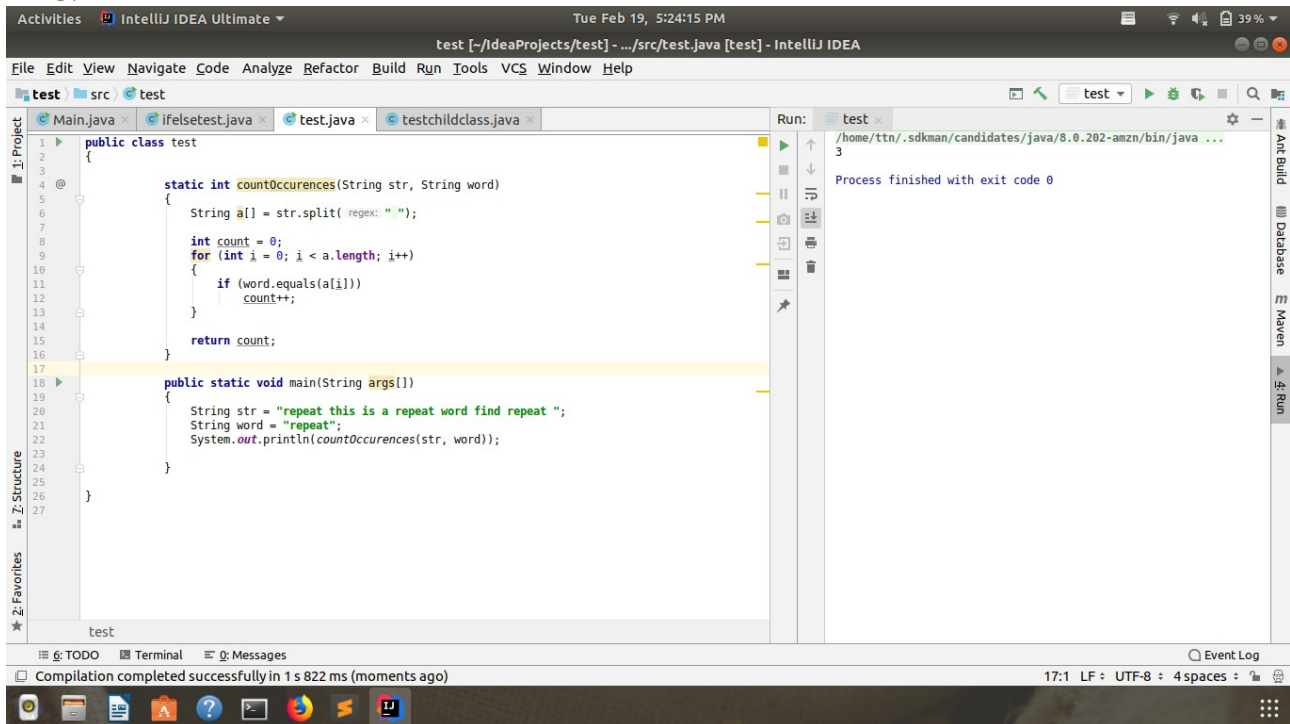


The screenshot shows the IntelliJ IDEA IDE interface. The main editor window displays a Java file named `test.java` with the following code:

```
1 public class test
2 {
3
4
5     public static void main(String args[])
6     {
7         String str = "Hello World";
8         System.out.println(str.replaceAll("llo W", "bye"));
9     }
10
11
12
13 }
```

The code is highlighted in yellow. The `Run` button is visible on the right side of the editor. Below the editor, the `Run` tab shows the output: `Hebyeorld`. The status bar at the bottom indicates that the compilation was successful.

Q2]Write a program to find the number of occurrences of the duplicate words in a string and print them ?
ANS.

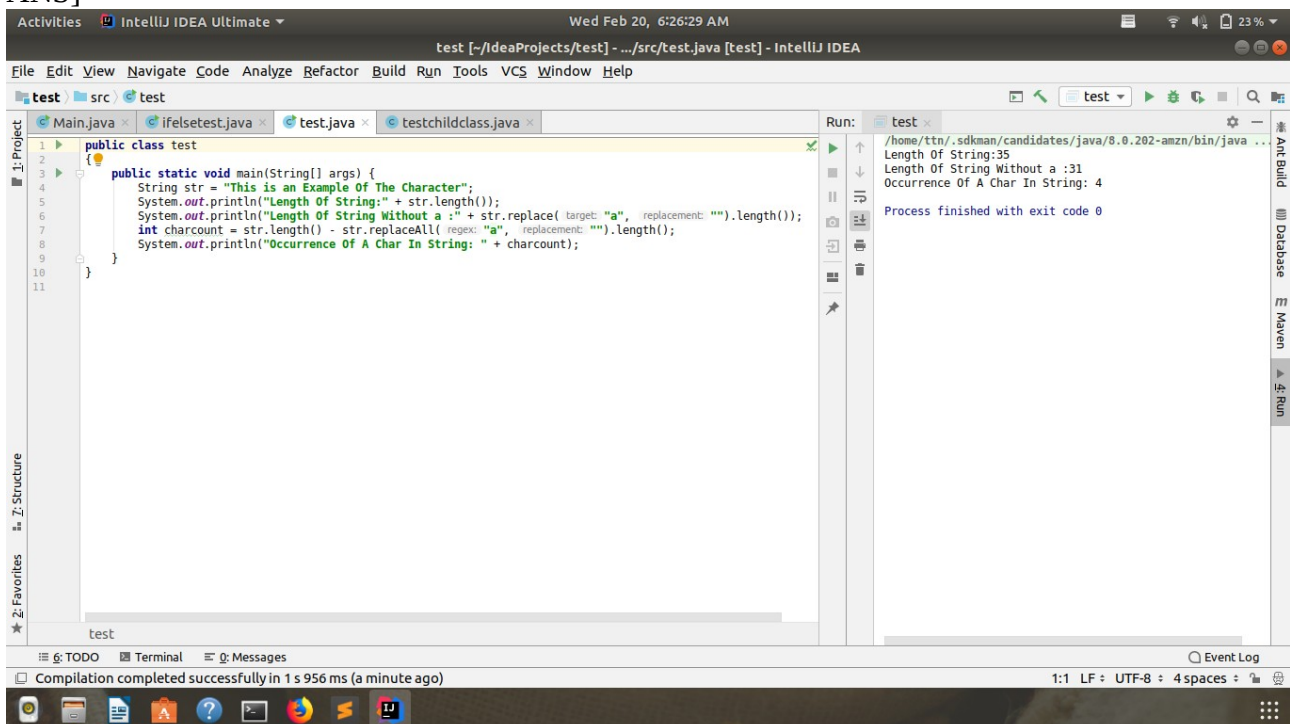


The screenshot shows the IntelliJ IDEA IDE with a Java file named `test.java`. The code defines a static method `countOccurrences` that takes a string and a word as input and returns the number of occurrences of that word in the string. The `main` method uses this function to find the occurrences of the word "repeat" in the string "repeat this is a repeat word find repeat". The output of the program is "3".

```
public class test
{
    static int countOccurrences(String str, String word)
    {
        String a[] = str.split(" ");
        int count = 0;
        for (int i = 0; i < a.length; i++)
        {
            if (word.equals(a[i]))
                count++;
        }
        return count;
    }

    public static void main(String args[])
    {
        String str = "repeat this is a repeat word find repeat ";
        String word = "repeat";
        System.out.println(countOccurrences(str, word));
    }
}
```

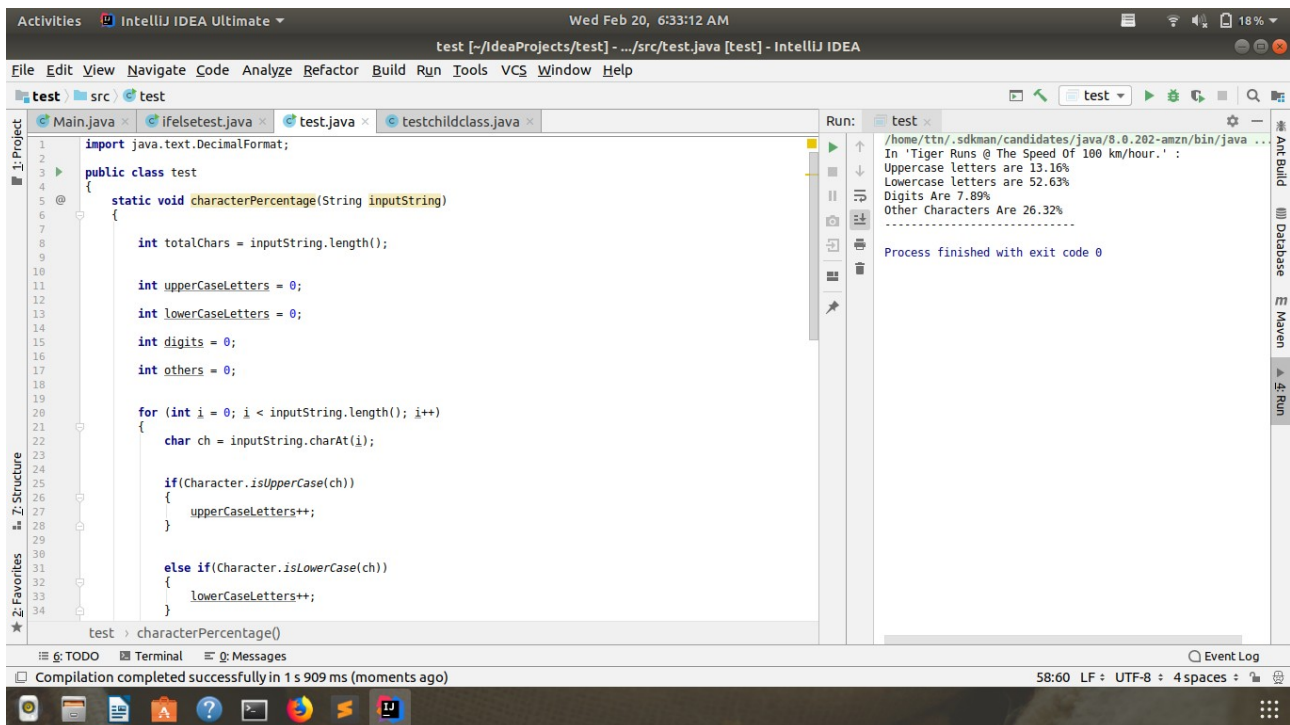
Q3]Write a program to find the number of occurrences of a character in a string without using loop?
ANS]



The screenshot shows the IntelliJ IDEA IDE with a Java file named `test.java`. The code defines a static method `main` that takes a string as input and prints the length of the string, the length of the string without a specific character, and the occurrence of that character in the string. The output of the program is "Length Of String:35", "Length Of String Without a :31", and "Occurrence Of A Char In String: 4".

```
public class test
{
    public static void main(String[] args) {
        String str = "This is an Example Of The Character";
        System.out.println("Length Of String:" + str.length());
        System.out.println("Length Of String Without a :" + str.replace(target: "a", replacement: "").length());
        int charcount = str.length() - str.replaceAll(regex: "a", replacement: "").length();
        System.out.println("Occurrence Of A Char In String: " + charcount);
    }
}
```

Q4] Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String
ANS.



```
import java.text.DecimalFormat;
public class test
{
    static void characterPercentage(String inputString)
    {
        int totalChars = inputString.length();
        int upperCaseLetters = 0;
        int lowerCaseLetters = 0;
        int digits = 0;
        int others = 0;
        for (int i = 0; i < inputString.length(); i++)
        {
            char ch = inputString.charAt(i);
            if(Character.isUpperCase(ch))
            {
                upperCaseLetters++;
            }
            else if(Character.isLowerCase(ch))
            {
                lowerCaseLetters++;
            }
            else if (Character.isDigit(ch))
            {
                digits++;
            }
            else
            {
                others++;
            }
        }
        double upperCaseLetterPercentage = (upperCaseLetters * 100.0) / totalChars ;
        double lowerCaseLetterPercentage = (lowerCaseLetters * 100.0) / totalChars;
        double digitsPercentage = (digits * 100.0) / totalChars;
        double otherCharPercentage = (others * 100.0) / totalChars;
        DecimalFormat formatter = new DecimalFormat("##.##");
        System.out.println("In '"+inputString+"' : ");
        System.out.println("Uppercase letters are
        "+formatter.format(upperCaseLetterPercentage)+"% ");
    }
}
```

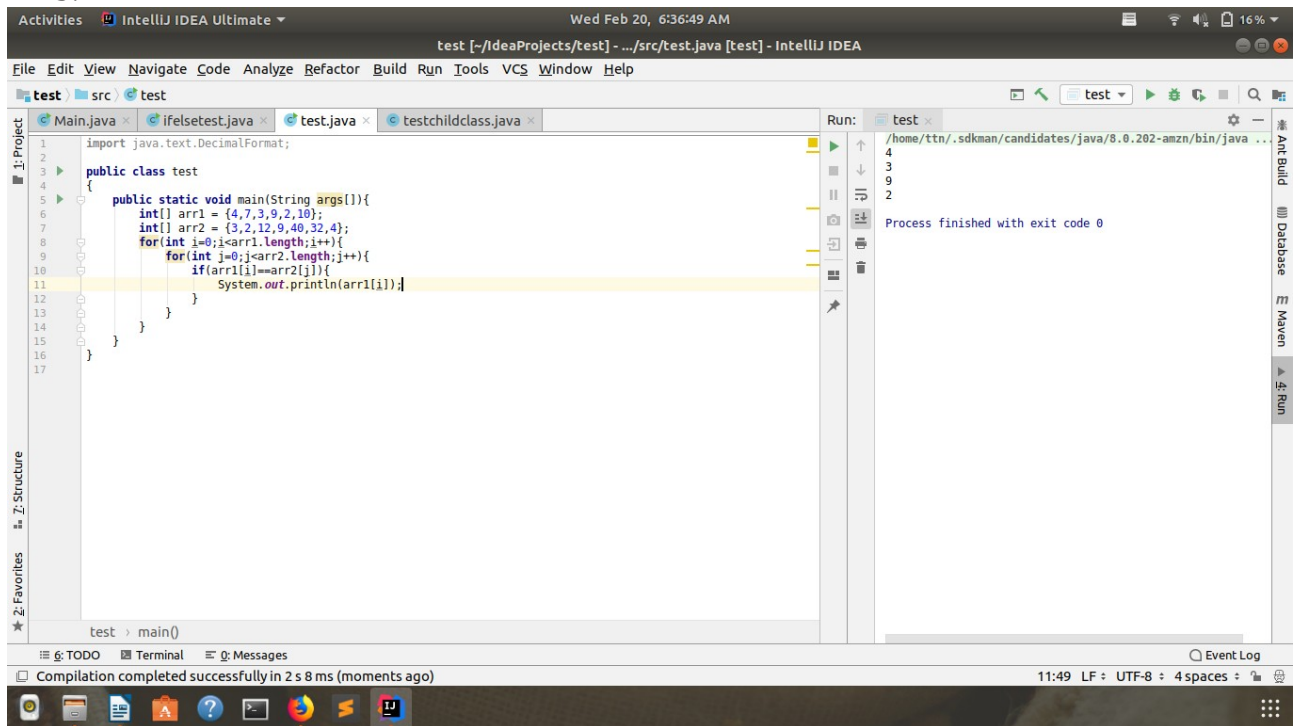
```

        System.out.println("Lowercase letters are
"+formatter.format(lowerCaseLetterPercentage)+"%");
        System.out.println("Digits Are "+formatter.format(digitsPercentage)+"%");
        System.out.println("Other Characters Are "+formatter.format(otherCharPercentage)
+"%");
        System.out.println("-----");
    }
    public static void main(String[] args)
    {
        characterPercentage("Tiger Runs @ The Speed Of 100 km/hour.");
    }
}

```

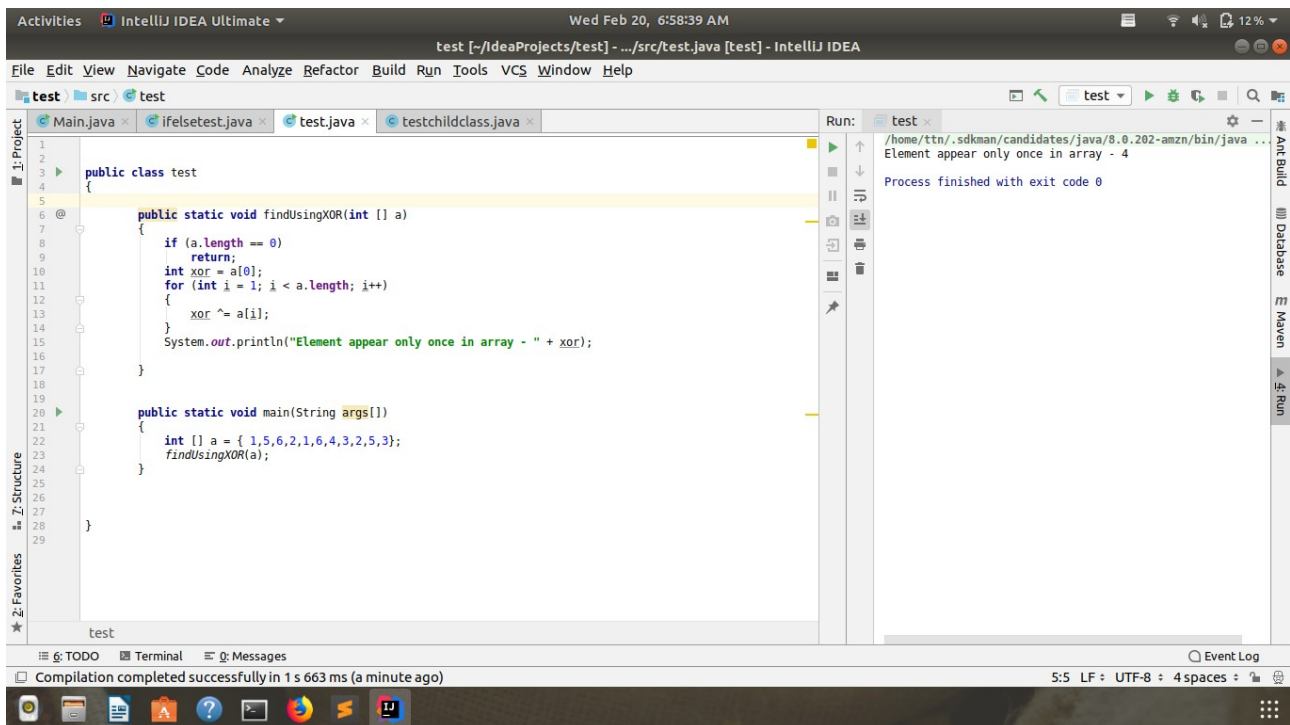
Q5]Find common elements between two arrays.

ANS.

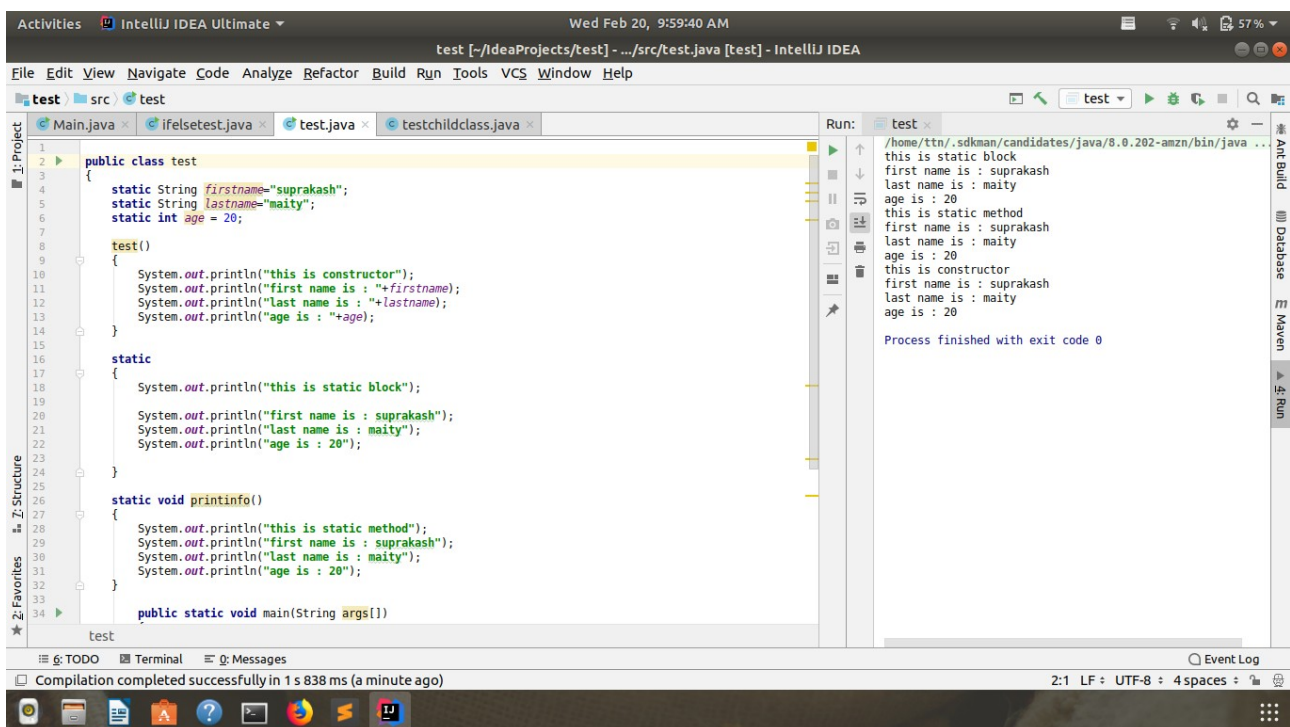


Q6. There is an array with every element repeated twice except one. Find that element

ANS]



Q7. Write a program to print your Firstname,LastName & age using static block,static method & static variable respectively
ANS.]



```

public class test
{
    static String firstname="suprakash";
    static String lastname="maity";
    static int age = 20;

    test()
    {

```



```

        System.out.println("this is constructor");
        System.out.println("first name is : "+firstname);
        System.out.println("last name is : "+lastname);
        System.out.println("age is : "+age);
    }
    static
    {
        System.out.println("this is static block");
        System.out.println("first name is : supakash");
        System.out.println("last name is : maity");
        System.out.println("age is : 20");
    }

    static void printinfo()
    {
        System.out.println("this is static method");
        System.out.println("first name is : supakash");
        System.out.println("last name is : maity");
        System.out.println("age is : 20");
    }

    public static void main(String args[])
    {
        test.printinfo();

        test t1=new test();

    }

}

```

Q8. Write a program to reverse a string and remove character from index 4 to index 9 from the reversed string using String Buffer.

ANS.

```

1 public class test
2 {
3
4
5
6
7
8     public static void main(String args[])
9     {
10         StringBuffer sbf = new StringBuffer("supakashm");
11         System.out.println("String buffer = " + sbf);
12         sbf.reverse();
13         System.out.println("String buffer after reversing = " + sbf);
14         sbf.delete(4, 9);
15         System.out.println("After deletion = " + sbf);
16
17     }
18
19
20
21
22
23
24 }

```

Run: test

```

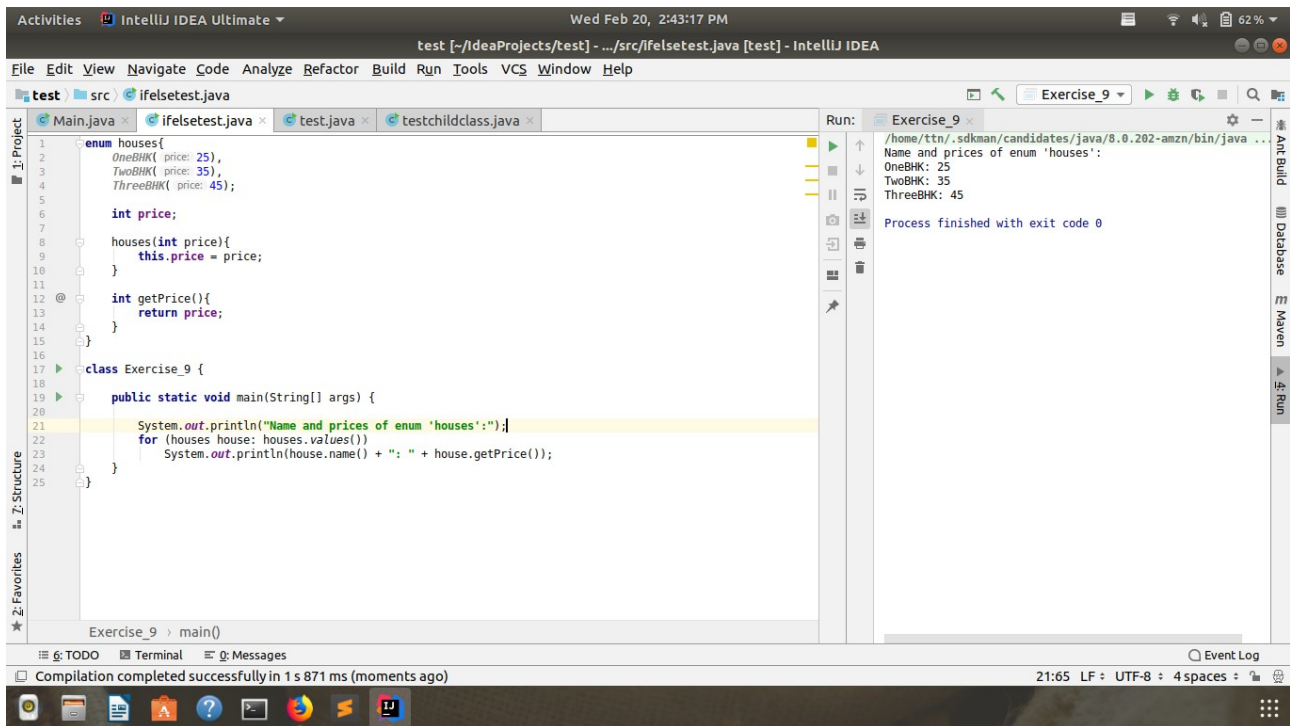
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
String buffer = supakashm
String buffer after reversing = mhsakarpus
After deletion = mhsas
Process finished with exit code 0

```

Compilation completed successfully in 1 s 747 ms (moments ago)

12:74 LF : UTF-8 : 4 spaces :

Q9. Write a program to display values of enums using a constructor & getPrice() method (Example display house & their prices)
ANS.



```
1  enum houses{
2      OneBHK( price: 25),
3      TwoBHK( price: 35),
4      ThreeBHK( price: 45);
5
6      int price;
7
8      houses(int price){
9          this.price = price;
10     }
11
12     @
13     int getPrice(){
14         return price;
15     }
16
17     class Exercise_9 {
18
19     public static void main(String[] args) {
20
21         System.out.println("Name and prices of enum 'houses':");
22         for (houses house: houses.values())
23             System.out.println(house.name() + ": " + house.getPrice());
24     }
25 }
```

Run: Exercise_9

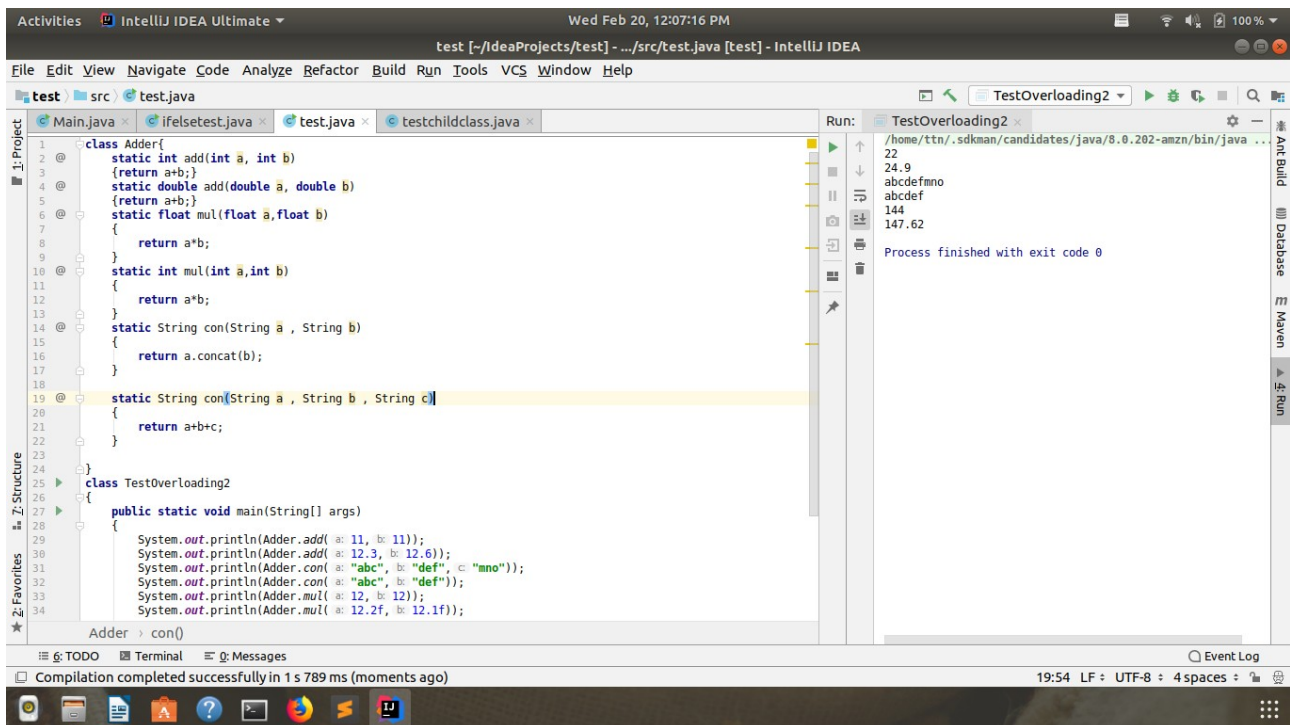
```
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ..
Name and prices of enum 'houses':
OneBHK: 25
TwoBHK: 35
ThreeBHK: 45
Process finished with exit code 0
```

Compilation completed successfully in 1 s 871 ms (moments ago)

Q10. 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) concat 2 string
- F) Concat 3 String

ANS.



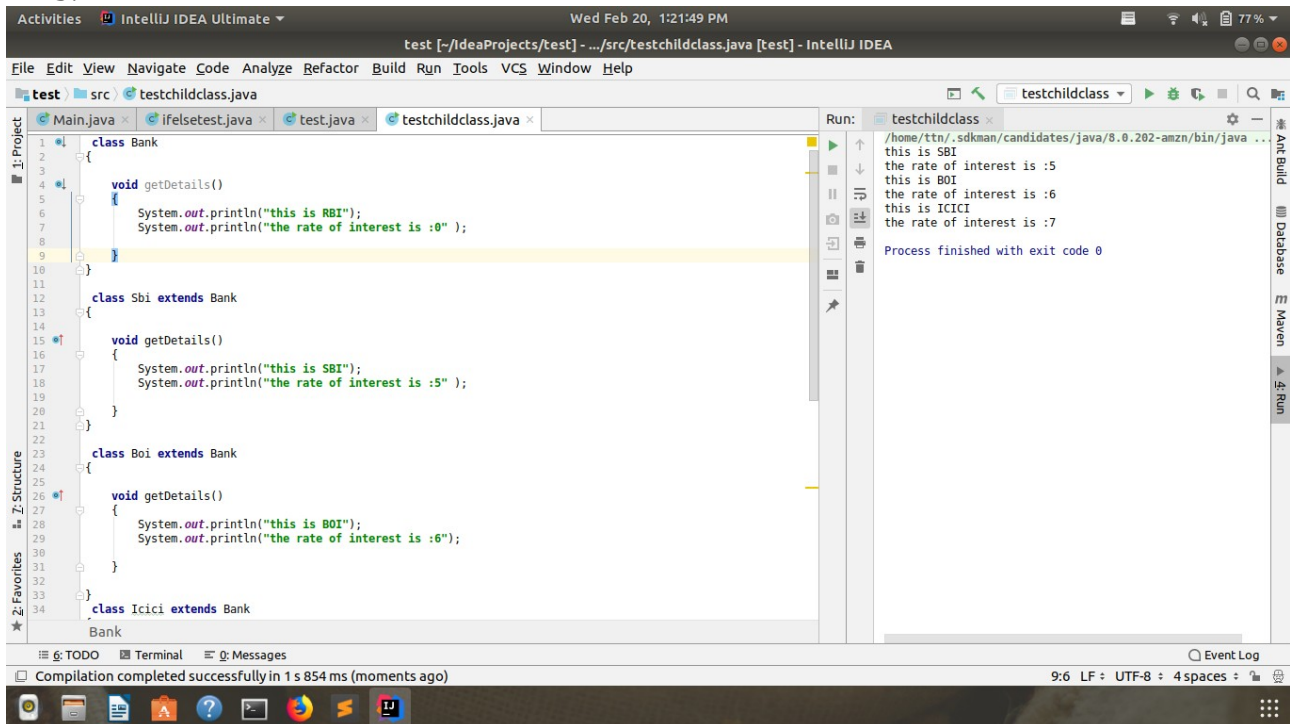
```

class Adder{
    static int add(int a, int b)
    {return a+b;}
    static double add(double a, double b)
    {return a+b;}
    static float mul(float a,float b)
    {
        return a*b;
    }
    static int mul(int a,int b)
    {
        return a*b;
    }
    static String con(String a , String b)
    {
        return a.concat(b);
    }
    static String con(String a , String b , String c)
    {
        return a+b+c;
    }
}

class TestOverloading2
{
    public static void main(String[] args)
    {
        System.out.println(Adder.add(11,11));
        System.out.println(Adder.add(12.3,12.6));
        System.out.println(Adder.con("abc","def","mno"));
        System.out.println(Adder.con("abc","def"));
        System.out.println(Adder.mul(12,12));
        System.out.println(Adder.mul(12.2f,12.1f));
    }
}

```


Q11.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
ANS.



The screenshot shows the IntelliJ IDEA IDE with a project named 'test'. The main editor displays the file 'testchildclass.java' containing the following Java code:

```
1 class Bank
2 {
3     void getDetails()
4     {
5         System.out.println("this is RBI");
6         System.out.println("the rate of interest is :0" );
7     }
8 }
9
10 class Sbi extends Bank
11 {
12     void getDetails()
13     {
14         System.out.println("this is SBI");
15         System.out.println("the rate of interest is :5" );
16     }
17 }
18
19 class Boi extends Bank
20 {
21     void getDetails()
22     {
23         System.out.println("this is BOI");
24         System.out.println("the rate of interest is :6");
25     }
26 }
27
28 class Icici extends Bank
29 {
30     void getDetails()
31     {
32         System.out.println("this is ICICI");
33         System.out.println("the rate of interest is :7");
34     }
35 }
```

The right-hand pane shows the 'Run' output for 'testchildclass'. The output is as follows:

```
Process finished with exit code 0
this is SBI
the rate of interest is :5
this is BOI
the rate of interest is :6
this is ICICI
the rate of interest is :7
```

```
class Bank
{

    void getDetails()
    {
        System.out.println("this is RBI");
        System.out.println("the rate of interest is :0" );
    }
}
class Sbi extends Bank
{

    void getDetails()
    {
        System.out.println("this is SBI");
        System.out.println("the rate of interest is :5" );
    }
}
class Boi extends Bank
{

    void getDetails()
    {
        System.out.println("this is BOI");
        System.out.println("the rate of interest is :6");
    }
}
class Icici extends Bank
{

    void getDetails()
    {
        System.out.println("this is ICICI");
        System.out.println("the rate of interest is :7");
    }
}
```

```
public class testchildclass
{
    public static void main(String args[])
    {
        Sbi s = new Sbi();
        Boi b = new Boi();
        Icici i =new Icici();
        s.getDetails();
        b.getDetails();
        i.getDetails();
    }
}
```