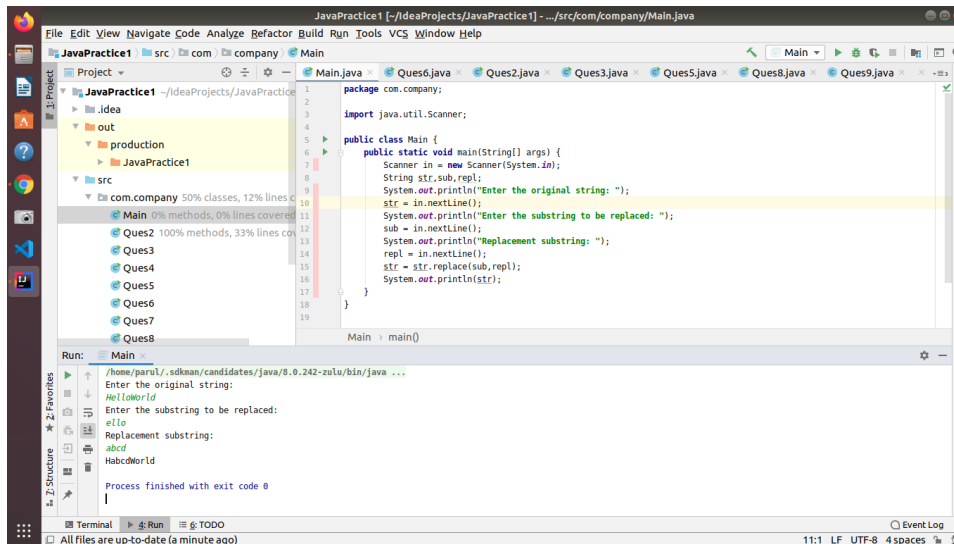


Question: 1:

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



The screenshot shows an IDE with a project named 'JavaPractice1'. The 'Main.java' file is open, containing the following code:

```
package com.company;

import java.util.Scanner;

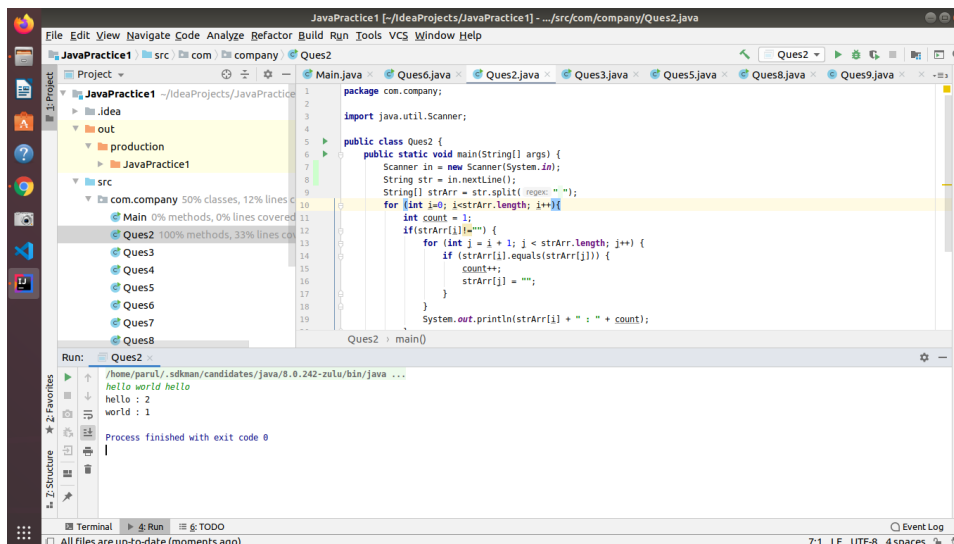
public class Main {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        String str, sub, repl;
        System.out.println("Enter the original string: ");
        str = in.nextLine();
        System.out.println("Enter the substring to be replaced: ");
        sub = in.nextLine();
        System.out.println("Replacement substring: ");
        repl = in.nextLine();
        str = str.replace(sub, repl);
        System.out.println(str);
    }
}
```

The 'Run' window shows the execution output:

```
Enter the original string:
HelloWorld
Enter the substring to be replaced:
ello
Replacement substring:
abcd
HabcWorld
Process finished with exit code 0
```

Question: 2:

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



The screenshot shows an IDE with a project named 'JavaPractice1'. The 'Ques2.java' file is open, containing the following code:

```
package com.company;

import java.util.Scanner;

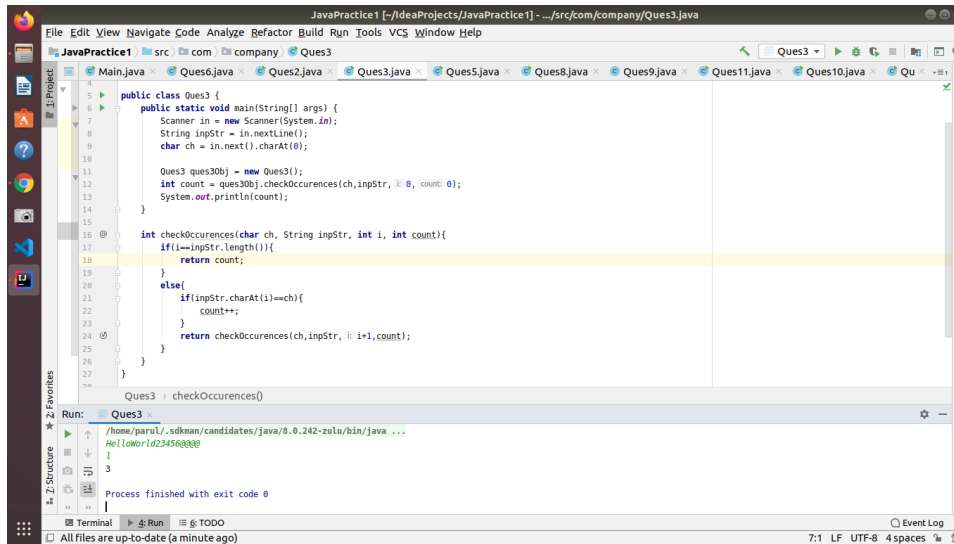
public class Ques2 {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        String str = in.nextLine();
        String[] strArr = str.split(" ");
        for (int i = 0; i < strArr.length; i++) {
            int count = 1;
            if (strArr[i] != "") {
                for (int j = i + 1; j < strArr.length; j++) {
                    if (strArr[i].equals(strArr[j])) {
                        count++;
                        strArr[j] = "";
                    }
                }
                System.out.println(strArr[i] + " : " + count);
            }
        }
    }
}
```

The 'Run' window shows the execution output:

```
hello world hello
hello : 2
world : 1
Process finished with exit code 0
```

Question: 3:

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

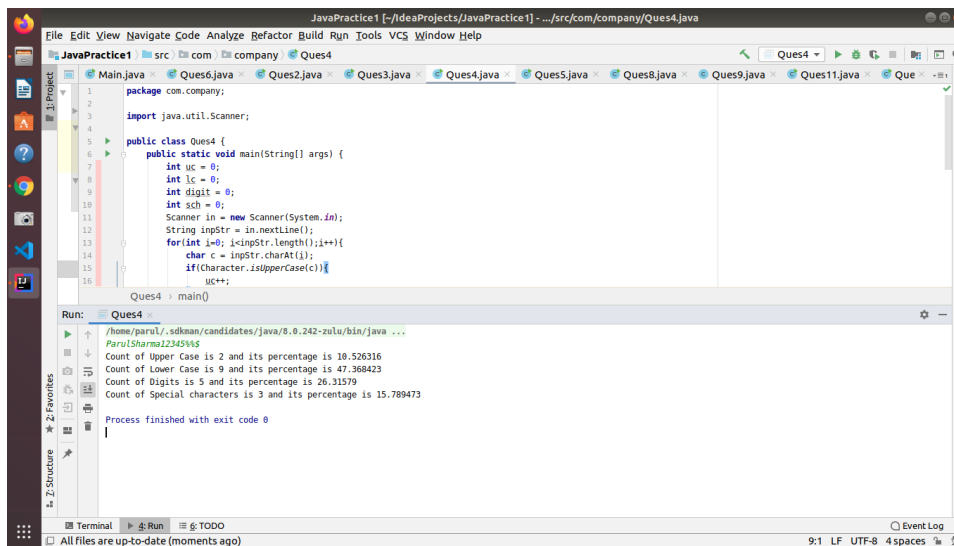


The screenshot shows an IDE window titled "JavaPractice1" with a project named "com.company". The file "Ques3.java" is open, showing a public class "Ques3" with a static method "main" and a recursive method "checkOccurrences". The "main" method takes an array of strings as input, reads a line from the user, and calls "checkOccurrences" to count the occurrences of the first character. The "checkOccurrences" method is a recursive function that returns the count of a character in a string. The Run window shows the output: "HelloWorld234560000".

```
public class Ques3 {  
    public static void main(String[] args) {  
        Scanner in = new Scanner(System.in);  
        String inpStr = in.nextLine();  
        char ch = inpStr.charAt(0);  
  
        Ques3 ques3ob = new Ques3();  
        int count = ques3ob.checkOccurrences(ch, inpStr, 0, count);  
        System.out.println(count);  
    }  
  
    int checkOccurrences(char ch, String inpStr, int i, int count){  
        if(i==inpStr.length()){  
            return count;  
        }  
        else{  
            if(inpStr.charAt(i)==ch){  
                count++;  
            }  
            return checkOccurrences(ch, inpStr, i+1, count);  
        }  
    }  
}
```

Run: Ques3
/home/paru/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
HelloWorld234560000
Process finished with exit code 0

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



The screenshot shows an IDE window titled "JavaPractice1" with a project named "com.company". The file "Ques4.java" is open, showing a public class "Ques4" with a static method "main". The "main" method reads a line from the user and calculates the count and percentage of lowercase letters, uppercase letters, digits, and special characters in the string. The Run window shows the output for the input "ParulSharma123456789".

```
package com.company;  
import java.util.Scanner;  
  
public class Ques4 {  
    public static void main(String[] args) {  
        int uc = 0;  
        int lc = 0;  
        int digit = 0;  
        int sch = 0;  
  
        Scanner in = new Scanner(System.in);  
        String inpStr = in.nextLine();  
        for(int i=0; i<inpStr.length(); i++){  
            char c = inpStr.charAt(i);  
            if(Character.isUpperCase(c)){  
                uc++;  
            }  
            else if(Character.isLowerCase(c)){  
                lc++;  
            }  
            else if(Character.isDigit(c)){  
                digit++;  
            }  
            else{  
                sch++;  
            }  
        }  
        System.out.println("Count of Upper Case is " + uc + " and its percentage is " + (uc*100/inpStr.length()));  
        System.out.println("Count of Lower Case is " + lc + " and its percentage is " + (lc*100/inpStr.length()));  
        System.out.println("Count of Digits is " + digit + " and its percentage is " + (digit*100/inpStr.length()));  
        System.out.println("Count of Special characters is " + sch + " and its percentage is " + (sch*100/inpStr.length()));  
    }  
}
```

Run: Ques4
/home/paru/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
ParulSharma123456789
Count of Upper Case is 2 and its percentage is 10.526316
Count of Lower Case is 9 and its percentage is 47.368423
Count of Digits is 5 and its percentage is 26.31579
Count of Special characters is 3 and its percentage is 15.789473
Process finished with exit code 0

```
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
JavaPractice1 src com company Ques4
Main.java Ques6.java Ques2.java Ques3.java Ques4.java Ques5.java Ques8.java Ques9.java Ques11.java Ques4.java
15 if(Character.isUpperCase(c)){
16     uc++;
17 }
18 else if(Character.isLowerCase(c)){
19     lc++;
20 }
21 else if(Character.isDigit(c)){
22     digit++;
23 }
24 else{
25     sch++;
26 }
27
28 int lenOfStr = inpStr.length();
29
30 System.out.println("Count of Upper Case is "+uc+ " and its percentage is "+ ((float)uc/lenOfStr)*100 );
31 System.out.println("Count of Lower Case is "+lc+ " and its percentage is "+ ((float)lc/lenOfStr)*100 );
32 System.out.println("Count of Digits is "+digit+ " and its percentage is "+ ((float)digit/lenOfStr)*100 );
33 System.out.println("Count of Special characters is "+sch+ " and its percentage is "+ ((float)sch/lenOfStr)*100 );
34 }
35
36 Ques4 > main()

Run: Ques4
/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
ParulSharma12345%$
Count of Upper Case is 2 and its percentage is 10.526316
Count of Lower Case is 9 and its percentage is 47.368423
Count of Digits is 5 and its percentage is 26.31579
Count of Special characters is 3 and its percentage is 15.789473
Process finished with exit code 0

Terminal Run TODO
All Files are up-to-date (a minute ago) 9:1 LF UTF-8 4spaces
```

Question: 5:
Find common elements between two arrays.

```
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
JavaPractice1 src com company Ques5
Main.java Ques6.java Ques2.java Ques3.java Ques4.java Ques5.java Ques8.java Ques9.java Ques11.java Ques5.java
1 package com.company;
2
3 import java.util.HashMap;
4 import java.util.Scanner;
5
6 public class Ques5 {
7     public static void main(String[] args) {
8         Scanner in = new Scanner(System.in);
9         HashMap hash = new HashMap();
10        HashMap hash2 = new HashMap();
11        String[] list1, list2;
12        System.out.println("Enter Elements in first array (Space Separated)");
13        list1 = in.nextLine().split(" ");
14        System.out.println("Enter Elements in second array (Space Separated)");
15        list2 = in.nextLine().split(" ");
16        for (String s : list1) {
17            hash.put(s, true);
18        }
19        for (String s : list2) {
20            if(hash.containsKey(s)){
21                hash2.put(s, 1);
22            }
23        }
24        System.out.println("Common elements are:");
25        for (String s : hash2.keySet()) {
26            System.out.print(s + " ");
27        }
28    }
29 }
30 Ques5 > main()

Run: Ques5
/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Enter Elements in first array (Space Separated)
1 2 3 4 5
Enter Elements in second array (Space Separated)
2 3 6 7 8
Common elements are:
2 3
Process finished with exit code 0

Terminal Run TODO
All Files are up-to-date (moments ago) 10:1 LF UTF-8 4spaces
```

```

package com.company;

import java.util.HashMap;
import java.util.Scanner;

public class Ques5 {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        String[] inpStr;
        inpStr = in.nextLine().split(" ");
        HashMap<String, Integer> hash1 = new HashMap<>();
        for (String s : inpStr) {
            if (hash1.containsKey(s)) {
                hash1.put(s, hash1.get(s) + 1);
            } else {
                hash1.put(s, 1);
            }
        }
        for (Object k : hash1.keySet()) {
            int val = hash1.get(k);
            if (val == 1) {
                System.out.println(k);
                break;
            }
        }
    }
}

```

Run: Ques5

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

Enter Elements in first array (Space Separated)

1 2 3 4 5

Enter Elements in second array (Space Separated)

2 3 6 7 8

Process finished with exit code 0

Question: 6:

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

```

package com.company;

import java.util.HashMap;
import java.util.Scanner;

public class Ques6 {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        String[] inpStr;
        inpStr = in.nextLine().split(" ");
        HashMap<String, Integer> hash1 = new HashMap<>();
        for (String s : inpStr) {
            if (hash1.containsKey(s)) {
                hash1.put(s, hash1.get(s) + 1);
            } else {
                hash1.put(s, 1);
            }
        }
        for (Object k : hash1.keySet()) {
            int val = hash1.get(k);
            if (val == 1) {
                System.out.println(k);
                break;
            }
        }
    }
}

```

Run: Ques6

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

1 1 2 2 4 5

Build completed successfully in 1 s 65 ms (moments ago)

Question: 7:

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

```

package com.company;

public class Ques7 {
    static String myStr;
    static int age = 20;
    static {
        myStr = "My First Name is: Parul";
    }
    static void myLastName() { System.out.println("My Last Name is: Sharma"); }

    public static void main(String[] args) {
        System.out.println(myStr);
        myLastName();
        System.out.println(age);
    }
}

```

Run: Ques7

```

/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
My First Name is: Parul
My Last Name is: Sharma
20
Process finished with exit code 0

```

Question: 8:

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

```

package com.company;

import java.util.Scanner;

public class Ques8 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        StringBuffer myStr = new StringBuffer(input.nextLine());
        System.out.println(myStr);
        System.out.println(myStr.reverse());
        System.out.println(myStr.delete(4,9));
    }
}

```

Run: Ques8

```

/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Hello java
avaJ java
avaJH
Process finished with exit code 0

```

Question: 9:

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

```

package com.company;

public class Ques9 {
    enum House {
        House1(50000), House2(60000), House3(70000);
    }

    private int price;
    House(int p){
        price = p;
    }

    int getPrice(){
        return price;
    }

    public static void main(String[] args) {
        for (House h : House.values()) {
            System.out.println(h.getPrice());
        }
    }
}

```

Run: Ques9

```

50000
60000
70000

```

Process finished with exit code 0

Question: 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) concatenate 2 string F) Concat 3 String

```

package com.company;

public class Ques10 {
    int sum(int x, int y){
        return x+y;
    }

    double sum(double x, double y){
        return x+y;
    }

    float prod(float x, float y){
        return x*y;
    }

    int prod(int x, int y){
        return x*y;
    }

    String concatenate(String x, String y){
        return x+y;
    }

    String concatenate(String x, String y, String z){
        return x+y+z;
    }

    public static void main(String[] args) {
        Ques10 q = new Ques10();
        System.out.println(q.sum(11, 11));
        System.out.println(q.sum(3.9, 3.7));
        System.out.println(q.prod(36, 36));
        System.out.println(q.concatenate("Welcome Java", "Hello world java"));
    }
}

```

Run: Ques10

```

11
3.9000000000000004
3.74000002
36
Welcome Java
Hello world java

```

Process finished with exit code 0

```

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
JavaPractice1 | src | com | company | Ques10
Ques10.java
String concatenate(String x, String y, String z){
    return x+y+z;
}

public static void main(String[] args) {
    Ques10 obj = new Ques10();
    System.out.println(obj.sum(5, 6));
    System.out.println(obj.sum(2.6, 1.3));
    System.out.println(obj.prod(1.1f, 3.4f));
    System.out.println(obj.prod(3, 12));
    System.out.println(obj.concatenate("Welcome ", "Java"));
    System.out.println(obj.concatenate("Hello ", "world ", "java"));
}

Run: Ques10
/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
11
3.9000000000000004
3.7400002
36
Welcome Java
Hello world java
Process finished with exit code 0

```

Question: 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

```

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
JavaPractice1 | src | com | company | Ques11.java
Ques11.java
package com.company;

public class Ques11 {
    public static void main(String[] args) {
        Bank obj = new Bank();
        Sbi obj1 = new Sbi();
        Boi obj2 = new Boi();
        Icici obj3 = new Icici();
        obj.getDetails();
        obj1.getDetails();
        obj2.getDetails();
        obj3.getDetails();
    }
}

class Bank{
    void getDetails(){
        System.out.print("Interest Rate :");
        System.out.println(19);
    }
}

class Sbi{
    void getDetails(){
        System.out.print("Interest Rate :");
        System.out.println(15);
    }
}

class Boi{
    void getDetails(){
        System.out.print("Interest Rate :");
        System.out.println(14);
    }
}

class Icici{
    void getDetails(){
        System.out.print("Interest Rate :");
        System.out.println(12);
    }
}

Run: Ques11
/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Interest Rate :15
Interest Rate :14
Interest Rate :12
Interest Rate :16
Process finished with exit code 0

```

```
JavaPractice1 [-/IdeaProjects/JavaPractice1] - .../src/com/company/Ques11.java
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

src com company Ques11.java
Main 0% me
Ques2 100%
Ques3
Ques4
Ques5
Ques6
Ques7
Ques8
Ques9
Ques10
Ques11.java
Bank
Boi
Icici
Ques11
Sbi

class Sbi extends Bank{
    void getDetails(){
        System.out.print("Interest Rate :");
        System.out.println(14);
    }
}

class Boi extends Bank{
    void getDetails(){
        System.out.print("Interest Rate :");
        System.out.println(12);
    }
}

class Ici extends Bank{
    void getDetails(){
        System.out.print("Interest Rate :");
        System.out.println(16);
    }
}

Ques11 main()
Run: Ques11
/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Interest Rate :15
Interest Rate :14
Interest Rate :12
Interest Rate :16
Process finished with exit code 0
Terminal Run Debug TODO
All Files are up-to-date (moments ago) 12:27 LF UTF-8 4 spaces
```

Question: 12: