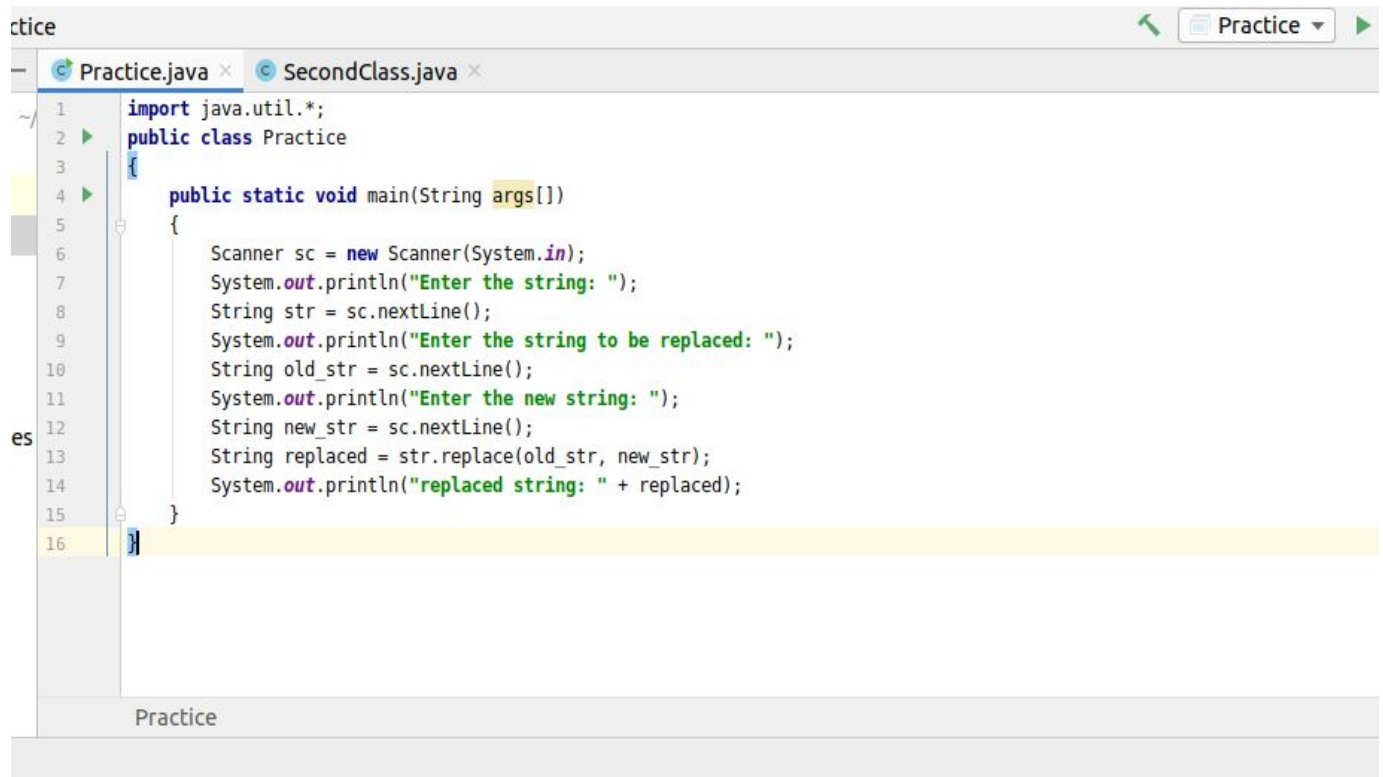


Q1. Write a program to replace a substring inside a string with other string ?

Answer:

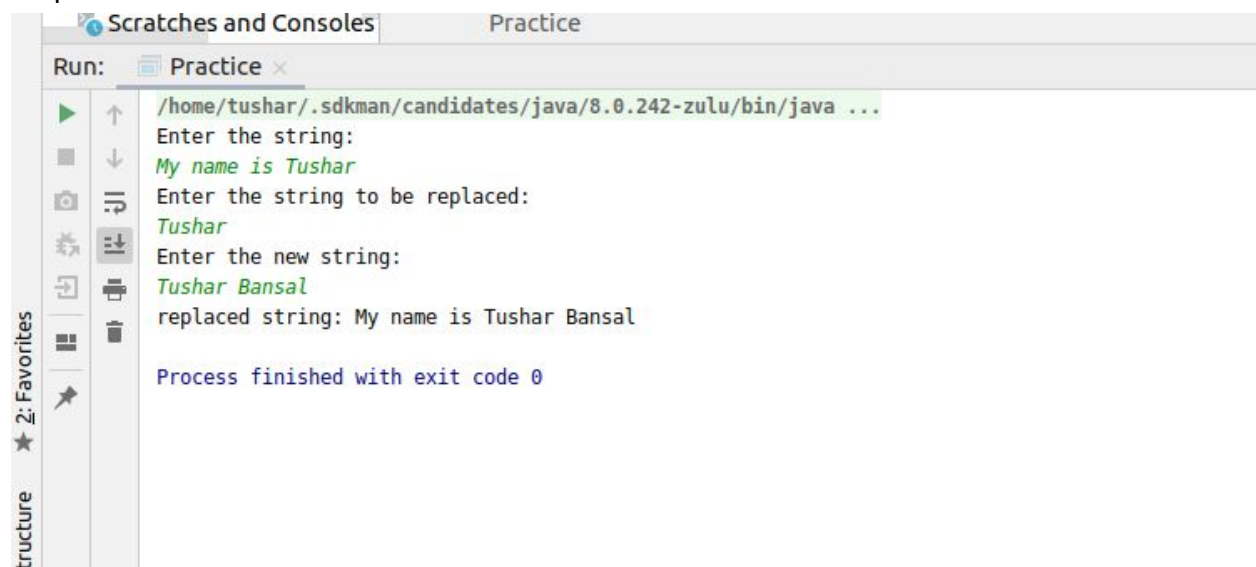
In this code ,we **import java.util.*;** just only to take the input by Scanner class.

str.replace(x,y): to replace the x string by y.



```
1  import java.util.*;
2  public class Practice
3  {
4      public static void main(String args[])
5      {
6          Scanner sc = new Scanner(System.in);
7          System.out.println("Enter the string: ");
8          String str = sc.nextLine();
9          System.out.println("Enter the string to be replaced: ");
10         String old_str = sc.nextLine();
11         System.out.println("Enter the new string: ");
12         String new_str = sc.nextLine();
13         String replaced = str.replace(old_str, new_str);
14         System.out.println("replaced string: " + replaced);
15     }
16 }
```

Output:

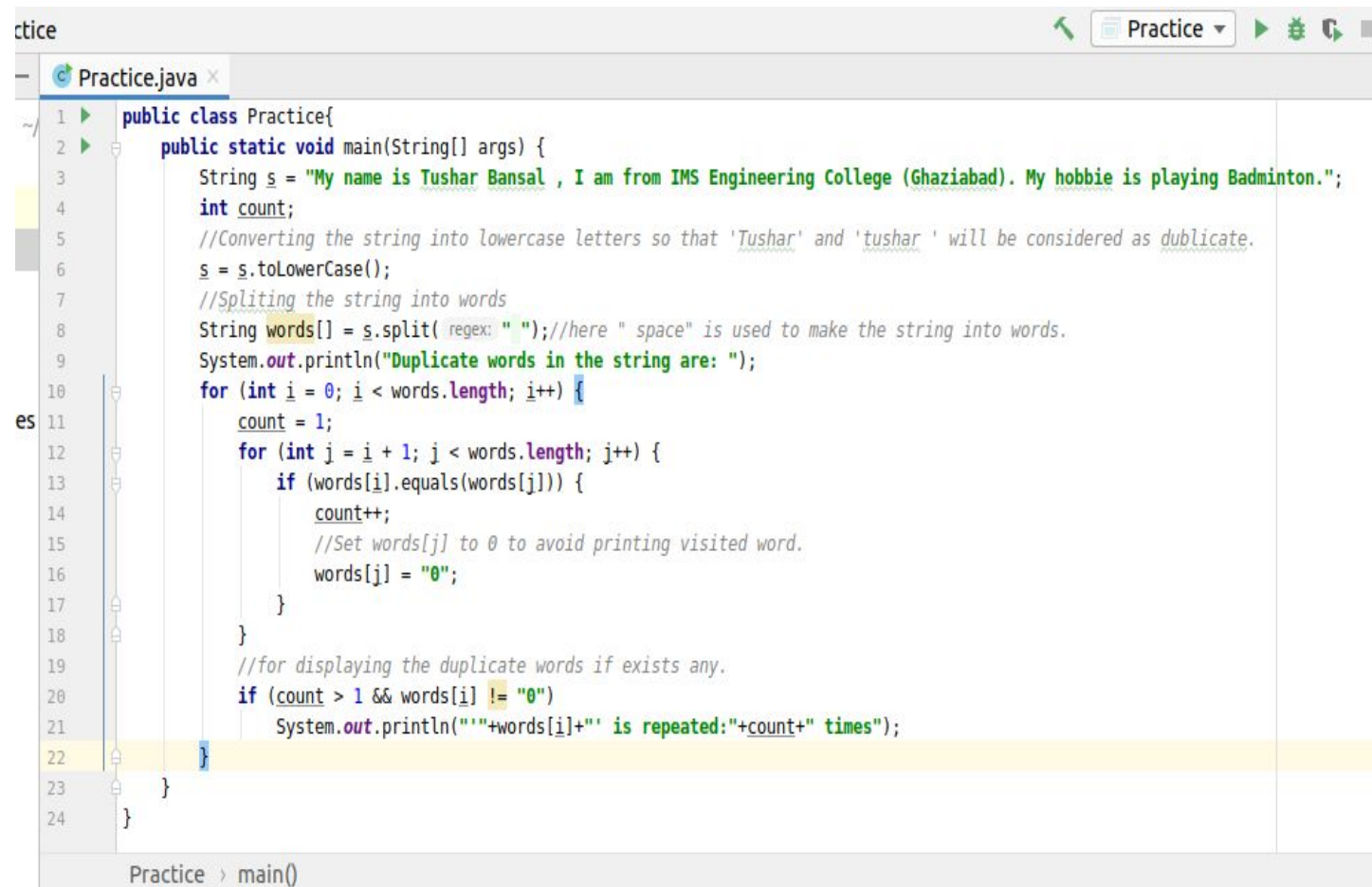


```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Enter the string:
My name is Tushar
Enter the string to be replaced:
Tushar
Enter the new string:
Tushar Bansal
replaced string: My name is Tushar Bansal

Process finished with exit code 0
```

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

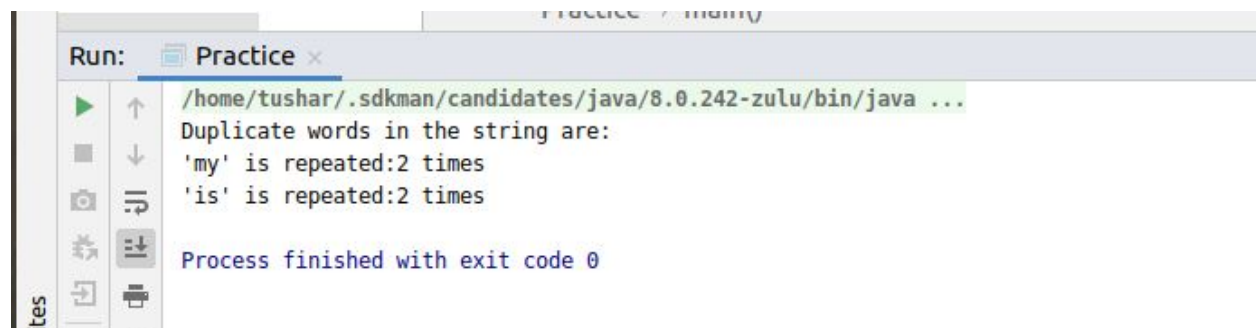
Answer:



```
Practice.java x
1 public class Practice{
2     public static void main(String[] args) {
3         String s = "My name is Tushar Bansal , I am from IMS Engineering College (Ghaziabad). My hobbie is playing Badminton.";
4         int count;
5         //Converting the string into lowercase letters so that 'Tushar' and 'tushar ' will be considered as duplicate.
6         s = s.toLowerCase();
7         //Splitting the string into words
8         String words[] = s.split( regex: " "); //here " space" is used to make the string into words.
9         System.out.println("Duplicate words in the string are: ");
10        for (int i = 0; i < words.length; i++) {
11            count = 1;
12            for (int j = i + 1; j < words.length; j++) {
13                if (words[i].equals(words[j])) {
14                    count++;
15                    //Set words[j] to 0 to avoid printing visited word.
16                    words[j] = "0";
17                }
18            }
19            //for displaying the duplicate words if exists any.
20            if (count > 1 && words[i] != "0")
21                System.out.println("'" + words[i] + "' is repeated: " + count + " times");
22        }
23    }
24 }
```

Practice > main()

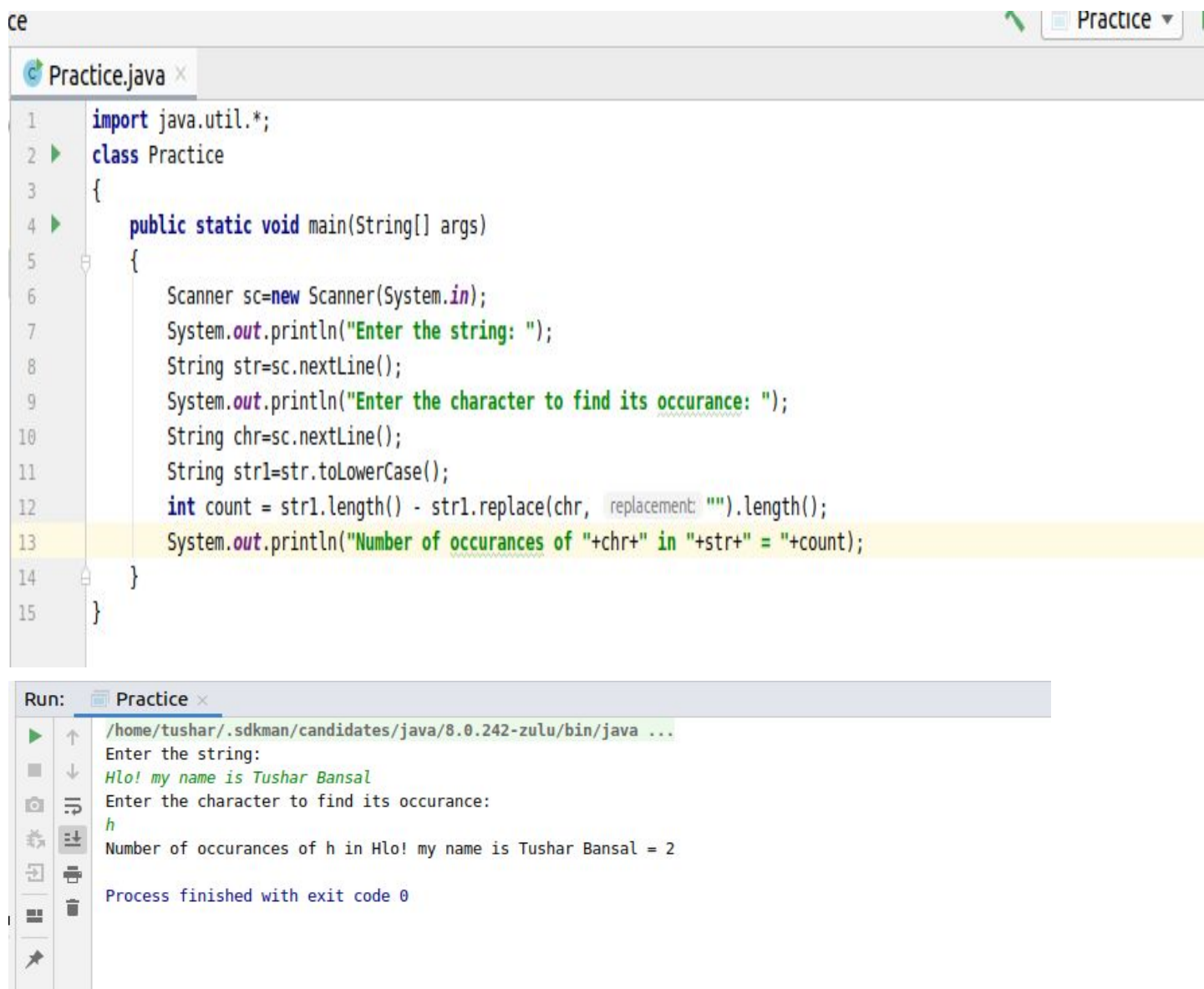
in the string are:
2 times



```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Duplicate words in the string are:
'my' is repeated:2 times
'is' is repeated:2 times
Process finished with exit code 0
```

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

Answer:



The screenshot displays an IDE with a Java file named 'Practice.java' and a 'Run' console window. The Java code uses the String.replace() method to count occurrences of a character. The console shows the program's execution with user input and the resulting count.

```
Practice.java x
1  import java.util.*;
2  class Practice
3  {
4  public static void main(String[] args)
5  {
6      Scanner sc=new Scanner(System.in);
7      System.out.println("Enter the string: ");
8      String str=sc.nextLine();
9      System.out.println("Enter the character to find its occurrence: ");
10     String chr=sc.nextLine();
11     String str1=str.toLowerCase();
12     int count = str1.length() - str1.replace(chr, "").length();
13     System.out.println("Number of occurrences of "+chr+" in "+str+" = "+count);
14 }
15 }
```

Run: Practice x

```
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Enter the string:
Hlo! my name is Tushar Bansal
Enter the character to find its occurrence:
h
Number of occurrences of h in Hlo! my name is Tushar Bansal = 2

Process finished with exit code 0
```

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

Answer:

project1 [~/IdeaProjects/Tush_java] - .../src/Practice.java

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Tush_java src Practice

Practice.java x

```
1 import java.util.*;
2 public class Practice {
3     public static void main(String[] args) {
4         Scanner sc = new Scanner(System.in);
5         System.out.println("Enter the string!");
6         String s = sc.next();
7         int uppercase = 0;
8         int lowercase = 0;
9         int digits=0;
10        int special_char=0;
11        int len=s.length();
12
13        for (int i = 0; i < s.length(); i++) {
14            if (Character.isLowerCase(s.charAt(i))) {
15                lowercase++;
16            } else if (Character.isUpperCase(s.charAt(i))) {
17                uppercase++;
18            } else if (Character.isDigit(s.charAt(i))) {
19                digits++;
20            } else
21                special_char++;
22        }
23        int p_low=(lowercase*100)/len;
24        int p_upper=(uppercase*100)/len;
25        int p_digit=(digits*100)/len;
26        int p_sp_chr=(special_char*100)/len;
27        System.out.println("No. of lowercase letter : " + lowercase+"and %age : "+p_low+"%");
28        System.out.println("No. of uppercase letter : " + uppercase+"and %age : "+p_upper+"%");
29        System.out.println("No of digits :"+digits+"and %age : "+p_digit+"%");
30        System.out.println("No of digits :"+special_char+"and %age : "+p_sp_chr+"%");
31    }
```

Practice > main()

☒ Terminal

☐ 4: Run

☐ 6: TODO

☐ All files are up-to-date (a minute ago)

Output.....

```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Enter the string!
hlo2@
No. of lowercase letter : 3and %age : 60%
No. of uppercase letter : 0and %age : 0%
No of digits :1and %age : 20%
No of digits :1and %age : 20%

Process finished with exit code 0
```

Q5. Find common elements between two arrays.

Answers:

```
Practice.java x
1 import java.util.*;
2 public class Practice{
3     public static void main(String[] args){
4         // taking two arrays
5         int[] arr1={10,20,30,40,50};
6         int[] arr2={5,10,15,20};
7         System.out.println("The common elements in the array are:");
8         for(int i=0;i<5;i++){
9             {
10                 for (int j=0;j<4;j++){
11                     {
12                         if(arr1[i]==(arr2[j]))
13                             System.out.print(arr1[i]+" ");
14                     }
15                 }
16             }
17         }
18     }
19 }
```

```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
The common elements in the array are:
10 20
Process finished with exit code 0
```


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

Answer:

```
Practice.java x
1  import java.util.*;
2  public class Practice{
3      public static void main(String[] args){
4          // taking two arrays
5          int[] arr1={10,20,30,40,50,10,20,30,40};
6          int size=arr1.length;
7
8          int result = arr1[0];
9          for (int i = 1; i < size; i++)
10             result = result ^ arr1[i];
11         System.out.println("The single element in array is :"+result);
12     }
13 }
```

```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
The single element in array is :50
Process finished with exit code 0
```

Q7. Write a program to print your Firstname, LastName & age using static block and method.

Answer:

Using static block--->

```
Practice.java x
1  public class Practice {
2      static {
3          String fname="Tushar";
4          String lname="Bansal";
5          int age=20;
6          System.out.println("Firstname "+fname);
7          System.out.println("Lastname "+lname);
8          System.out.println("age "+age);
9      } public static void main(String[] a){
10
11     }
12
13 }
```

```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Firstname Tushar
Lastname Bansal
age 20
Process finished with exit code 0
```

Using ststic method----->

```
Practice.java x
1 public class Practice {
2     static void getDetails() {
3         String fname="Tushar";
4         String lname="Bansal";
5         int age=20;
6         System.out.println("Firstname "+fname);
7         System.out.println("Lastname "+lname);
8         System.out.println("age "+age);
9     } public static void main(String[] a){
10         getDetails();
11     }
12 }
13
14 }
```

```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Firstname Tushar
Lastname Bansal
age 20
Process finished with exit code 0
```

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

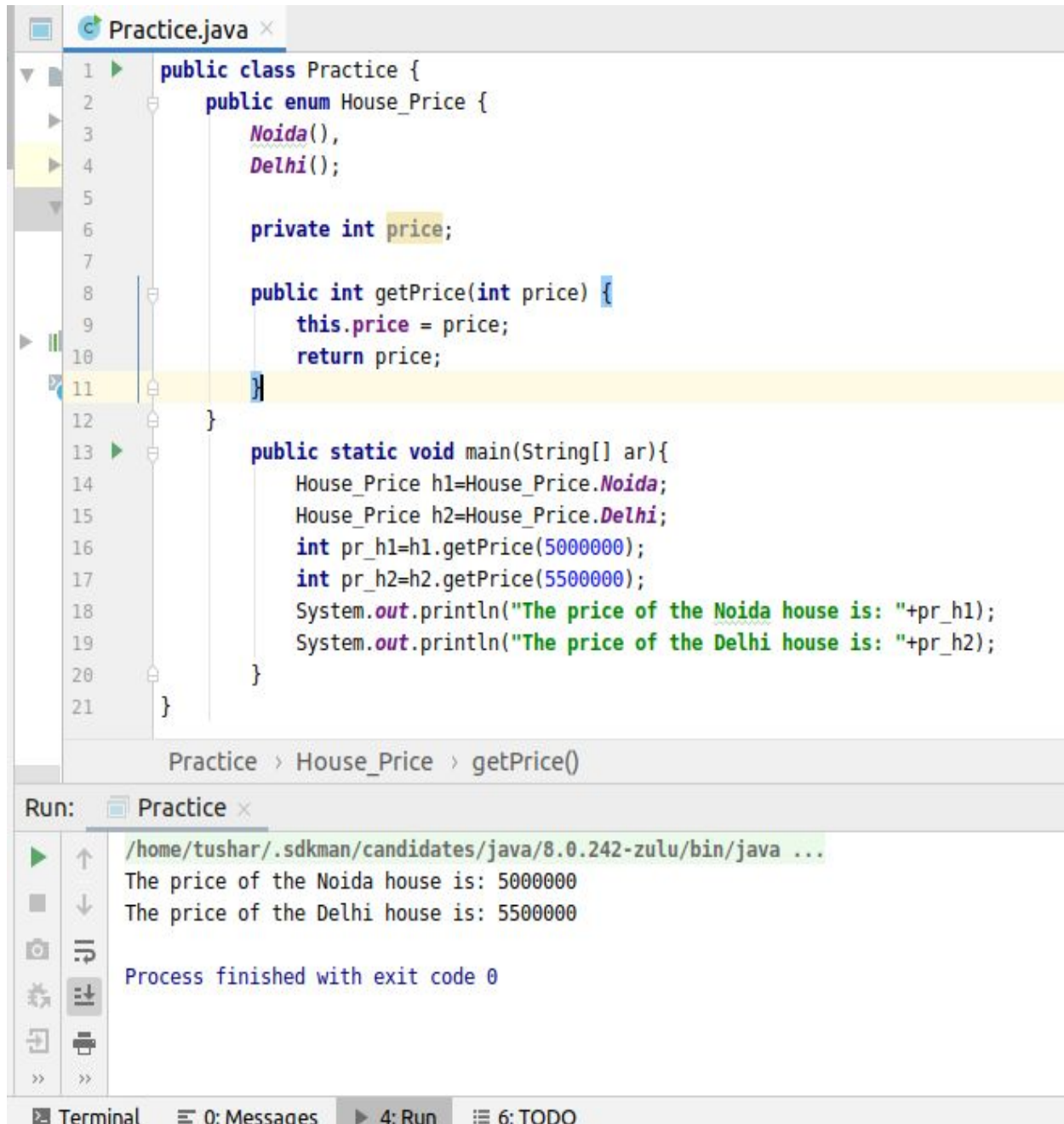
Answer:

```
Practice.java x
1  import java.util.*;
2  public class Practice{
3      public static void main(String[] ar){
4          System.out.println("Enter a string");
5          Scanner sc=new Scanner(System.in);
6          String str=sc.nextLine();
7          StringBuffer sb=new StringBuffer(str);
8          sb.reverse();
9          String str1=sb.toString();
10         System.out.println("reversed string is: "+str1);
11         String replaced = str1.replace(str1.substring(4,9), replacement: "");
12         System.out.println("replaced string: " + replaced);
13     }
14 }
15
```

```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Enter a string
hhhhhhhhheeeeeee
reversed string is: eeeeeehhhhhhhh
replaced string: eeeehhhhhh
|
Process finished with exit code 0
```

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

Answer:



The screenshot shows an IDE with a file named 'Practice.java'. The code defines a class 'Practice' with an inner enum 'House_Price' having two values: 'Noida()' and 'Delhi()'. A private integer 'price' is declared. A 'getPrice(int price)' method is implemented, which assigns the parameter to 'this.price' and returns it. The 'main' method creates two 'House_Price' objects, 'h1' (Noida) and 'h2' (Delhi), calls 'getPrice' with values 5000000 and 5500000 respectively, and prints the results. The 'Run' tab shows the command executed and the output: 'The price of the Noida house is: 5000000' and 'The price of the Delhi house is: 5500000'. The process finished with exit code 0.

```
1 public class Practice {  
2     public enum House_Price {  
3         Noida(),  
4         Delhi();  
5  
6         private int price;  
7  
8         public int getPrice(int price) {  
9             this.price = price;  
10            return price;  
11        }  
12    }  
13    public static void main(String[] ar){  
14        House_Price h1=House_Price.Noida;  
15        House_Price h2=House_Price.Delhi;  
16        int pr_h1=h1.getPrice(5000000);  
17        int pr_h2=h2.getPrice(5500000);  
18        System.out.println("The price of the Noida house is: "+pr_h1);  
19        System.out.println("The price of the Delhi house is: "+pr_h2);  
20    }  
21 }
```

Practice > House_Price > getPrice()

Run: Practice x

/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
The price of the Noida house is: 5000000
The price of the Delhi house is: 5500000
Process finished with exit code 0

Terminal 0: Messages 4: Run 6: TODO

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) concate 2 string
- F) Concate 3 String

Answer:

```
public class Practice {
    public static void main(String[] ar) {
        calculation a = new calculation();
        System.out.println("add in int: " + a.add(20, 40));
        System.out.println("add in double: " + a.add(19.22233, 33.1122));
        System.out.println("multiply in int: " + a.multiply(12, 14));
        System.out.println("multiply in float: " + a.multiply((float) 1.9, (float) 2.3));
        System.out.println("Concat 2 string: " + a.concat("hlo ", "Tushar"));
        System.out.println("concat 3 strings: :" + a.concat("hlo ", "my name is", " Tushar"));
    }
}

class calculation {
    int result;
    double answer;
    float ans;
    String res;
    public int add(int num1, int num2) {
        result = num1 + num2;
        return result;
    }
    public double add(double num1, double num2) {
        answer = num1 + num2;
        return answer;
    }
    public float multiply(float num1, float num2) {
        ans = num1 * num2;
        return ans;
    }
    public int multiply(int num1, int num2) {
        result = num1 * num2;
        return result;
    }
    public String concat(String s1, String s2) {
        res = s1.concat(s2);
        return res;
    }
    public String concat(String s1, String s2, String s3) {
        res = s1.concat(s2);
        res = res.concat(s3);
        return res;
    }
}
```

Output:



```
Run: Practice x
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
add in int: 60
add in double: 52.33453
multiply in int: 168
multiply in float: 4.37
Concat 2 string: hlo Tushar
concat 3 strings: :hlo my name is Tushar
Process finished with exit code 0
```

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.

Answer:

```
public class Practice
{
    public static void main(String[] ar){
        SBI a=new SBI();
        BOI b=new BOI();
        ICICI c=new ICICI();
        System.out.println("The SBI bank interest is : "+a.getDetails((float)3)+"%");
        System.out.println("The BOI bank interest is : "+a.getDetails((float)2.5)+"%");
        System.out.println("The ICICI bank interest is : "+a.getDetails((float)3.8)+"%");
    }
}
class SBI{
    float interest;
    public float getDetails(float interest)
    {
        this.interest=interest;
        return interest;
    }
}
class BOI{
    float interest;
    public float getDetails(float interest)
    {
        this.interest=interest;
        return interest;
    }
}
class ICICI{
    float interest;
    public float getDetails(float interest)
    {
```

```
    this.interest=interest;  
    return interest;  
}  
}
```



Run: Practice ×

```
/home/tushar/.sdkman/candidates/java/8.0.242-zulu/bin/java ...  
The SBI bank interest is : 3.0%  
The BOI bank interest is : 2.5%  
The ICICI bank interest is : 3.8%  
  
Process finished with exit code 0
```