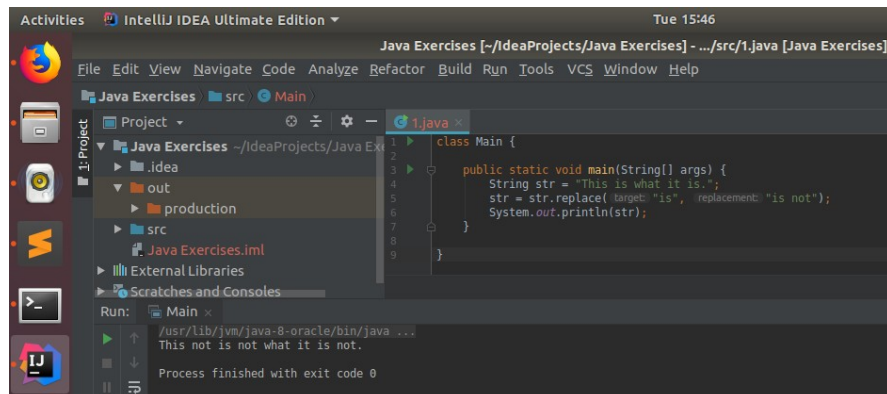


Q1. Write a program to replace a substring inside a string with other string ?

A1.

1.java

```
class Exercise_1 {  
  
    public static void main(String[] args) {  
        String str = "This is what it is.";  
        str = str.replace("is", "is not");  
        System.out.println(str);  
    }  
}
```



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

A2.

2.java

```
import java.util.Scanner;
```

```
class Exercise_2 {  
  
    public static void main(String[] args) {  
  
        Scanner sc = new Scanner(System.in);  
        String str = sc.nextLine();  
  
        String[] words = str.split(" ");  
        int[] count = new int[words.length];  
  
        System.out.println("Number of duplicate words in the string are: ");  
  
        for (int i = 0; i < words.length - 1; i++) {  
  
            count[i] = 1;  
  
            for (int j = i + 1; j < words.length; j++) {  
  
                if (count[i] == -1)  
                    break;  
  
                if (count[j] == -1)
```

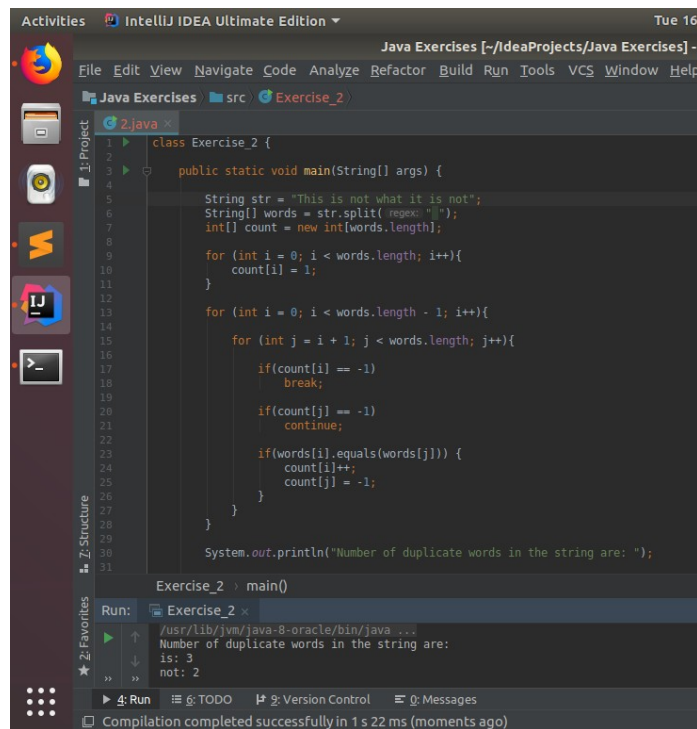
```

        continue;

        if (words[i].equals(words[j])) {
            count[i]++;
            count[j] = -1;
        }
    }

    if (count[i] > 1)
        System.out.println(words[i] + ": " + count[i]);
    }
}
}

```



Q3. Write a program to find the number of occurrences of a character in a string without using loop?  
A3.

3.java

```
import java.util.Scanner;
```

```
class Exercise_3 {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        String str = sc.nextLine();
```

```
        char c = sc.next().charAt(0);
```

```
        int len_w_char = str.length();
```

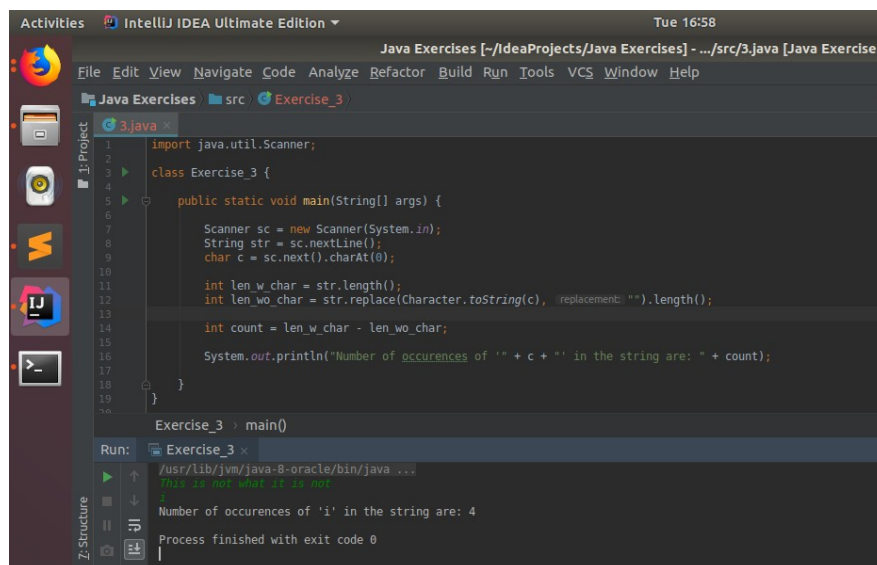
```
        int len_wo_char = str.replace(Character.toString(c), "").length();
```

```
        int count = len_w_char - len_wo_char;
```

```

    System.out.println("Number of occurrences of '" + c + "' in the string are: " + count);
}

```



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

A4.

4.java

```
import java.util.Scanner;
```

```
class Exercise_4 {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
        String str = sc.nextLine();
```

```
        char[] chars = str.toCharArray();
```

```
        int lowercase = 0, uppercase = 0, digits = 0, spechars = 0;
```

```
        for (int i = 0; i < chars.length; i++){
```

```
            if(Character.isLowerCase(chars[i]))
                lowercase++;
```

```
            else if(Character.isUpperCase(chars[i]))
                uppercase++;
```

```
            else if(Character.isDigit(chars[i]))
                digits++;
```

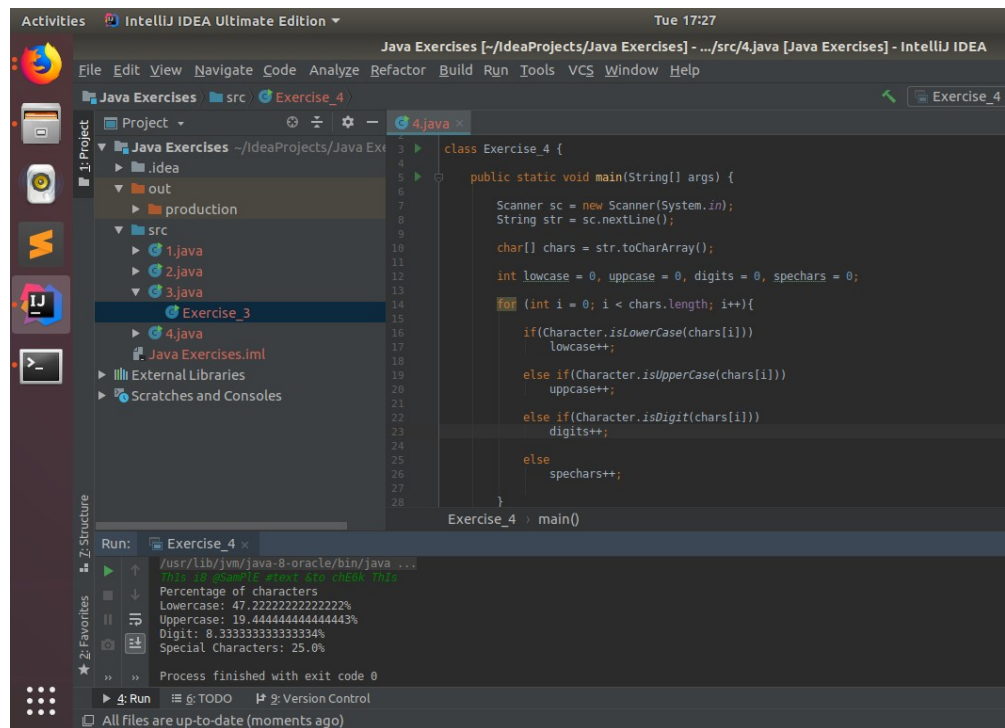
```
            else
                spechars++;
```

```

    }

    System.out.println("Percentage of characters");
    System.out.println("Lowercase: " + (lowercase * 100.0 / chars.length) +
        "%\nUppercase: " + (uppercase * 100.0 / chars.length) +
        "%\nDigit: " + (digits * 100.0 / chars.length) +
        "%\nSpecial Characters: " + (spechars * 100.0 / chars.length) + "%");
}
}

```



Q5. Find common elements between two arrays.

A5.

5.java

```

import java.util.ArrayList;
import java.util.Scanner;

```

```

class Exercise_5 {

```

```

    public static void main(String[] args) {

```

```

        Scanner sc = new Scanner(System.in);

```

```

        System.out.println("Enter the sizes of the array (n1, n2):");
        int n1 = sc.nextInt(), n2 = sc.nextInt();

```

```

        int arr1[] = new int[n1], arr2[] = new int[n2];
        ArrayList<Integer> commonele = new ArrayList<>();

```

```

        System.out.println("Enter first array: ");
        for (int i = 0; i < n1; i++)

```

```

arr1[i] = sc.nextInt();

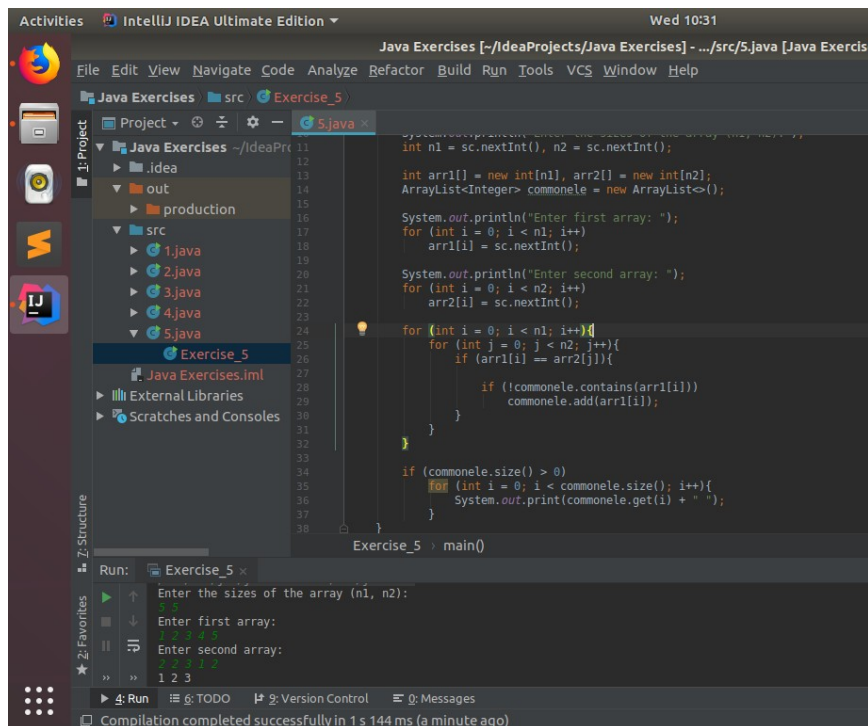
System.out.println("Enter second array: ");
for (int i = 0; i < n2; i++)
    arr2[i] = sc.nextInt();

for (int i = 0; i < n1; i++){
    for (int j = 0; j < n2; j++){
        if (arr1[i] == arr2[j]){

            if (!commonele.contains(arr1[i]))
                commonele.add(arr1[i]);
        }
    }
}

if (commonele.size() > 0)
    for (int i = 0; i < commonele.size(); i++){
        System.out.print(commonele.get(i) + " ");
    }
}

```



Q6. There is an array with every element repeated twice except one. Find that element  
A6.

6.java

```
import java.util.Scanner;
```

```

class Exercise_6 {

    public static void main(String[] args) {

```

```
Scanner sc = new Scanner(System.in);
```

```
System.out.println("Enter the size of the array: ");
```

```
int n = sc.nextInt();
```

```
int[] arr = new int[n];
```

```
int[] count = new int[n];
```

```
System.out.println("Enter the elements of the array: ");
```

```
for (int i = 0; i < n; i++)
```

```
    arr[i] = sc.nextInt();
```

```
for (int i = 0; i < n; i++) {
```

```
    int flag = 0;
```

```
    for (int j = 0; j < n; j++) {
```

```
        if (i != j && arr[i] == arr[j]) {
```

```
            flag = 1;
```

```
            break;
```

```
        }
```

```
    }
```

```
    if (flag == 0) {
```

```
        System.out.println("The element having single occurrence: " + arr[i]);
```

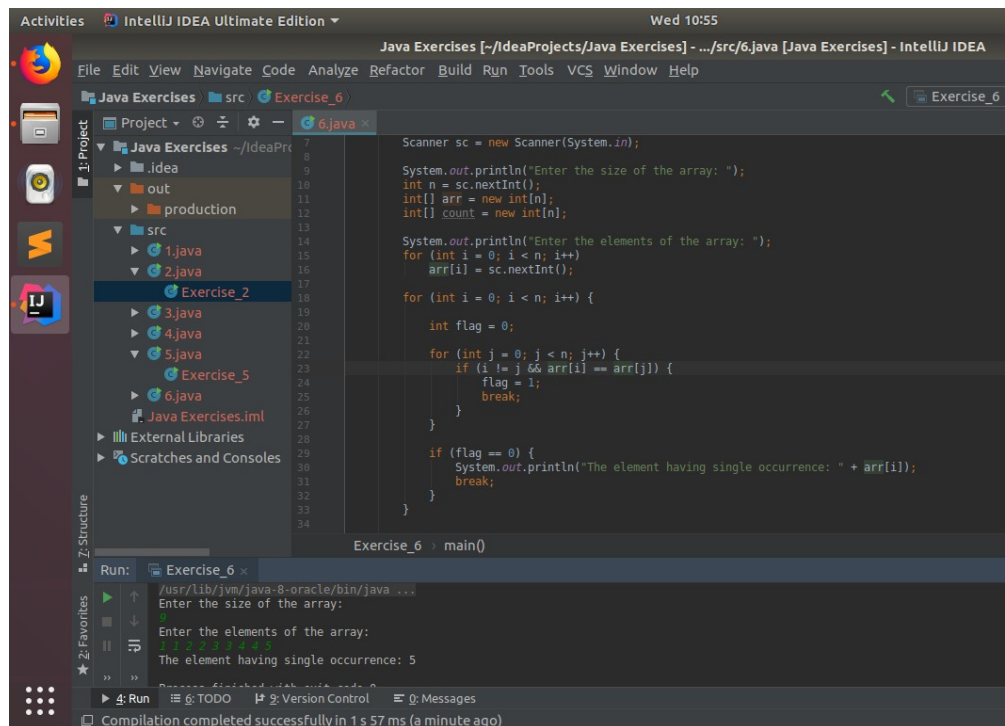
```
        break;
```

```
    }
```

```
}
```

```
}
```

```
}
```



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

A7.

7.java

```
class Exercise_7 {
```

```
    static String blockFirstName;  
    static String blockLastName;  
    static int blockAge;
```

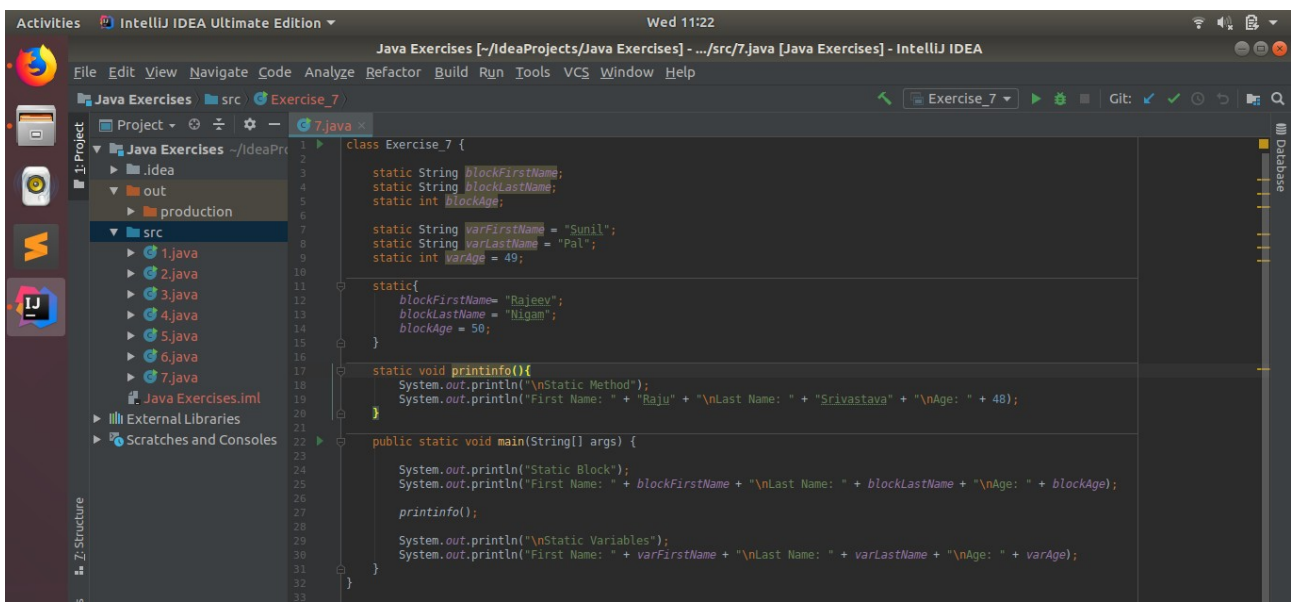
```
    static String varFirstName = "Sunil";  
    static String varLastName = "Pal";  
    static int varAge = 49;
```

```
    static{  
        blockFirstName= "Rajeev";  
        blockLastName = "Nigam";  
        blockAge = 50;  
    }
```

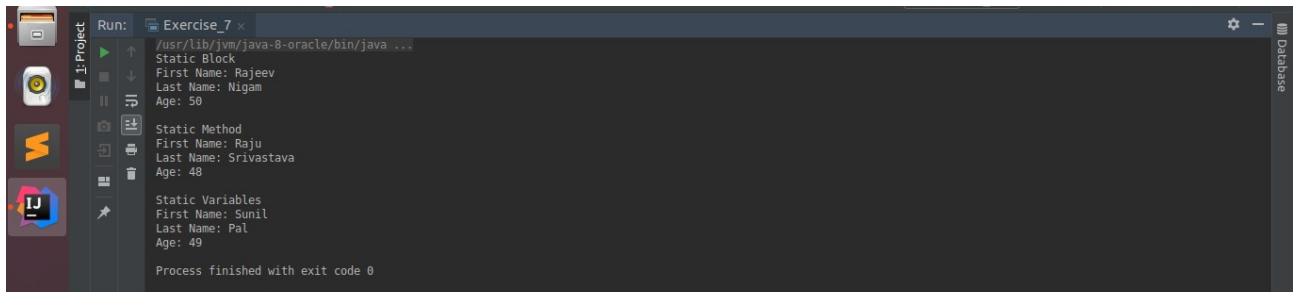
```
    static void printinfo(){  
        System.out.println("\nStatic Method");  
        System.out.println("First Name: " + "Raju" + "\nLast Name: " + "Srivastava" + "\nAge: " + 48);  
    }
```

```
    public static void main(String[] args) {
```

```
        System.out.println("Static Block");  
        System.out.println("First Name: " + blockFirstName + "\nLast Name: " + blockLastName + "\nAge: " + blockAge);  
  
        printinfo();  
  
        System.out.println("\nStatic Variables");  
        System.out.println("First Name: " + varFirstName + "\nLast Name: " + varLastName + "\nAge: " + varAge);  
    }  
}
```







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

A8.

8.java

```
import java.util.Scanner;
```

```
class Exercise_8 {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter the string: ");
```

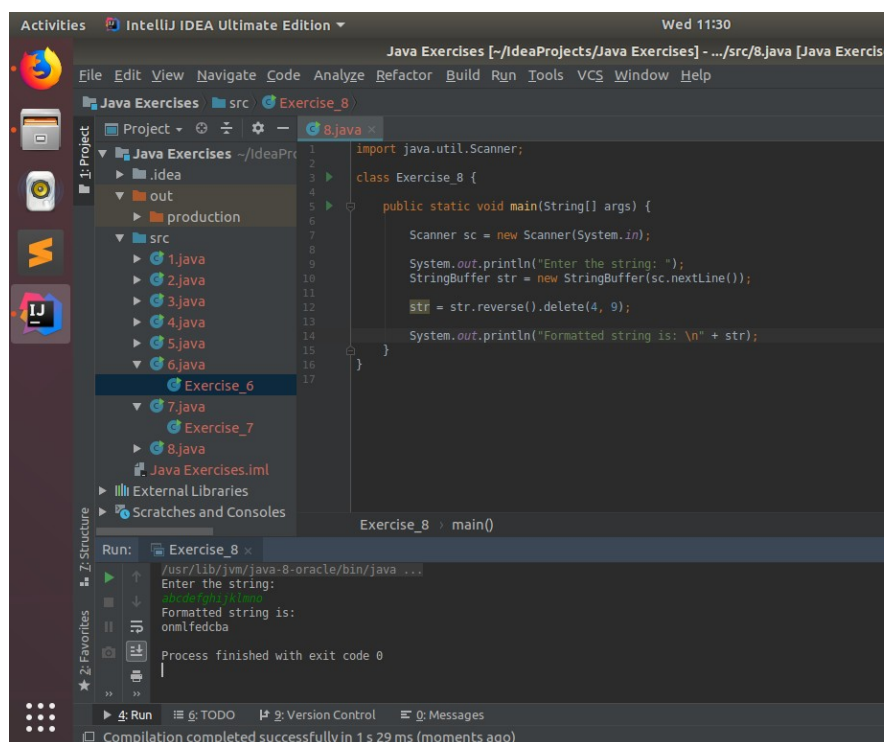
```
        StringBuffer str = new StringBuffer(sc.nextLine());
```

```
        str = str.reverse().delete(4, 9);
```

```
        System.out.println("Formatted string is: \n" + str);
```

```
    }
```

```
}
```





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

A9.

9.java

```
enum houses{
    OneBHK(25),
    TwoBHK(35),
    ThreeBHK(45);

    int price;

    houses(int price){
        this.price = price;
    }

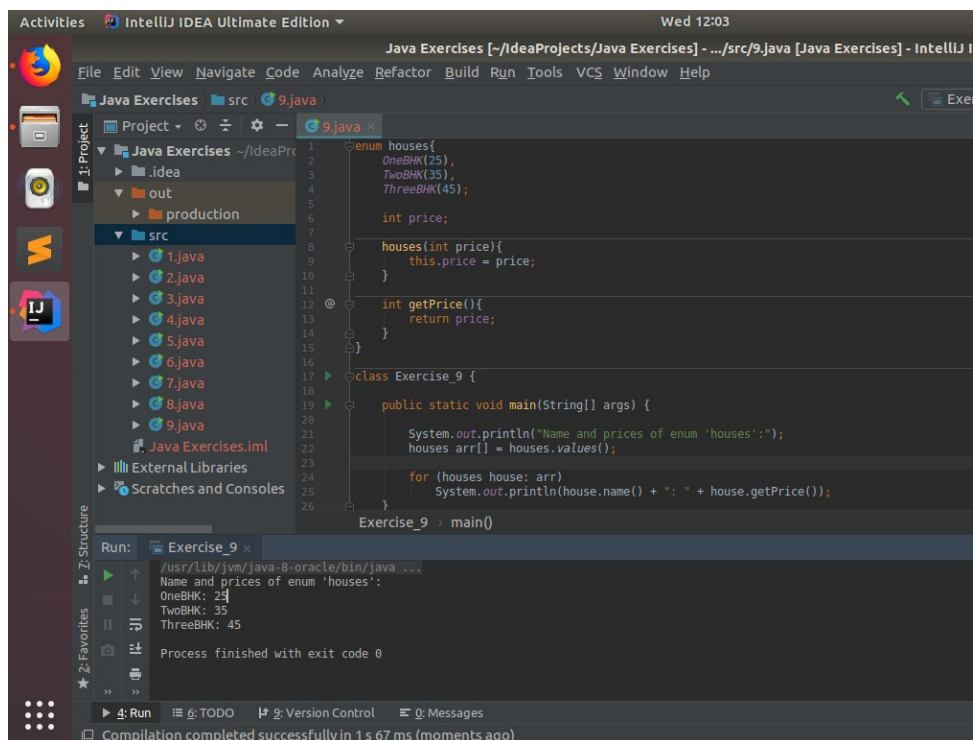
    int getPrice(){
        return price;
    }
}

class Exercise_9 {

    public static void main(String[] args) {

        System.out.println("Name and prices of enum 'houses':");
        houses arr[] = houses.values();

        for (houses house: arr)
            System.out.println(house.name() + ": " + house.getPrice());
    }
}
```



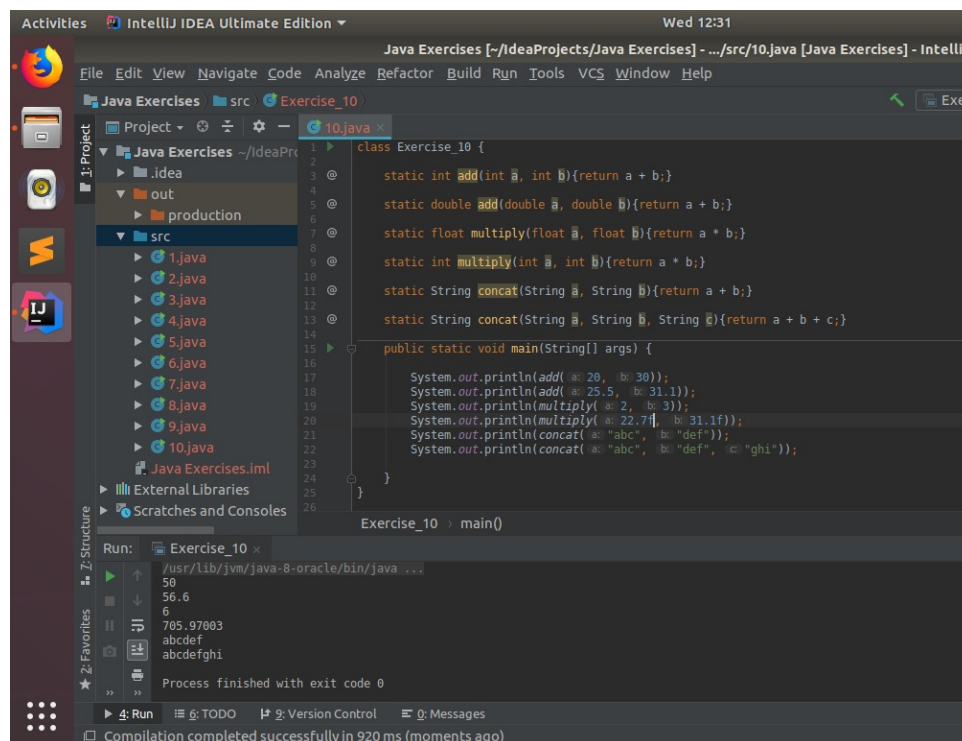
Q10. Write a single program for following operation using overloading

- 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

A10.

10.java

```
class Exercise_10 {  
  
    static int add(int a, int b){return a + b;}  
  
    static double add(double a, double b){return a + b;}  
  
    static float multiply(float a, float b){return a * b;}  
  
    static int multiply(int a, int b){return a * b;}  
  
    static String concat(String a, String b){return a + b;}  
  
    static String concat(String a, String b, String c){return a + b + c;}  
  
    public static void main(String[] args) {  
  
        System.out.println(add(20, 30));  
        System.out.println(add(25.5, 31.1));  
        System.out.println(multiply(2, 3));  
        System.out.println(multiply(22.7f, 31.1f));  
        System.out.println(concat("abc", "def"));  
        System.out.println(concat("abc", "def", "ghi"));  
  
    }  
}
```



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

A11.

11.java

```
class Bank {

    String name;
    double roi;

    Bank(String name, double roi){
        this.name = name;
        this.roi = roi;
    }

    void getDetails(){
        System.out.println("Name of the bank: " + name);
        System.out.println("ROI of the bank: " + roi);
    }
}

class SBI extends Bank{

    SBI(){
        super("SBI", 6.0);
    }
}

class BOI extends Bank{

    BOI(){
        super("BOI", 5.5);
    }
}

class ICICI extends Bank{

    ICICI(){
        super("ICICI", 7.0);
    }
}

class Exercise_11{

    public static void main(String[] args) {
        SBI sbi = new SBI();
        BOI boi = new BOI();
        ICICI icici = new ICICI();

        System.out.println("Calling getDetails() of SBI class object...");
        sbi.getDetails();

        System.out.println("Calling getDetails() of BOI class object...");
```

```
boi.getDetails();
```

```
System.out.println("Calling getDetails() of ICICI class object...");
```

```
icici.getDetails();
```

```
}
```

```
}
```

