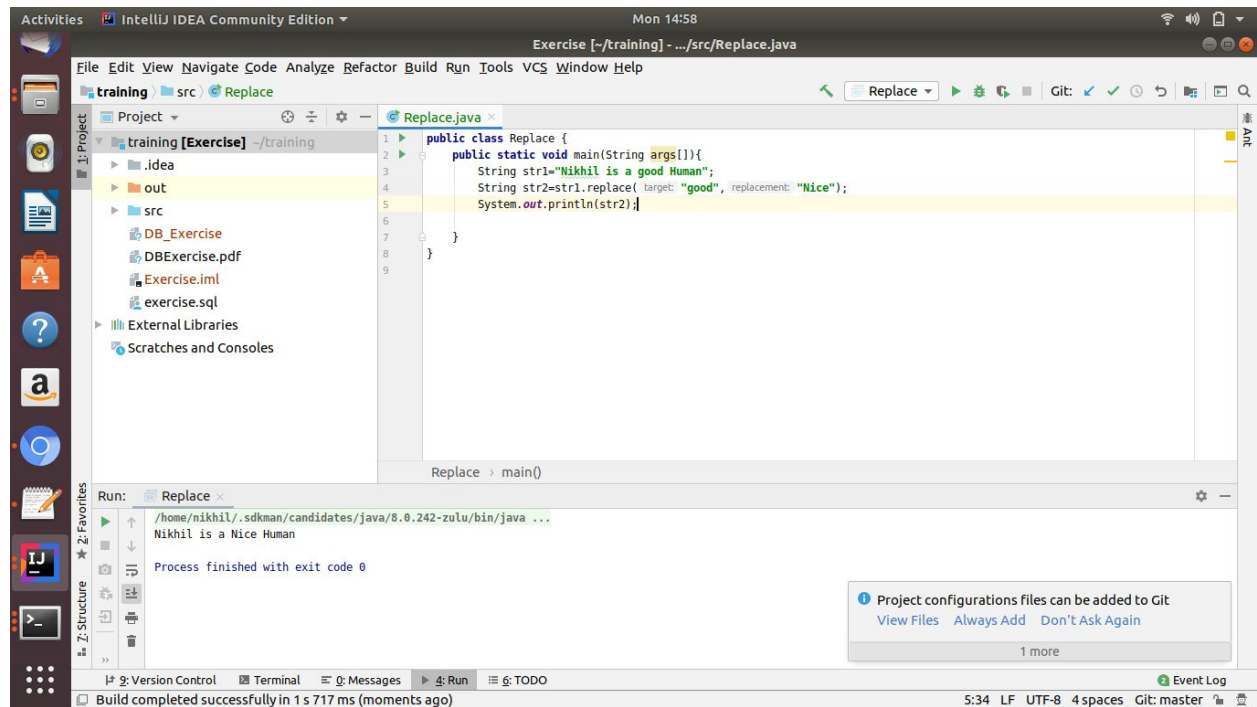**Q1.Write a program to replace a substring inside a string with other string ?**

Ans.
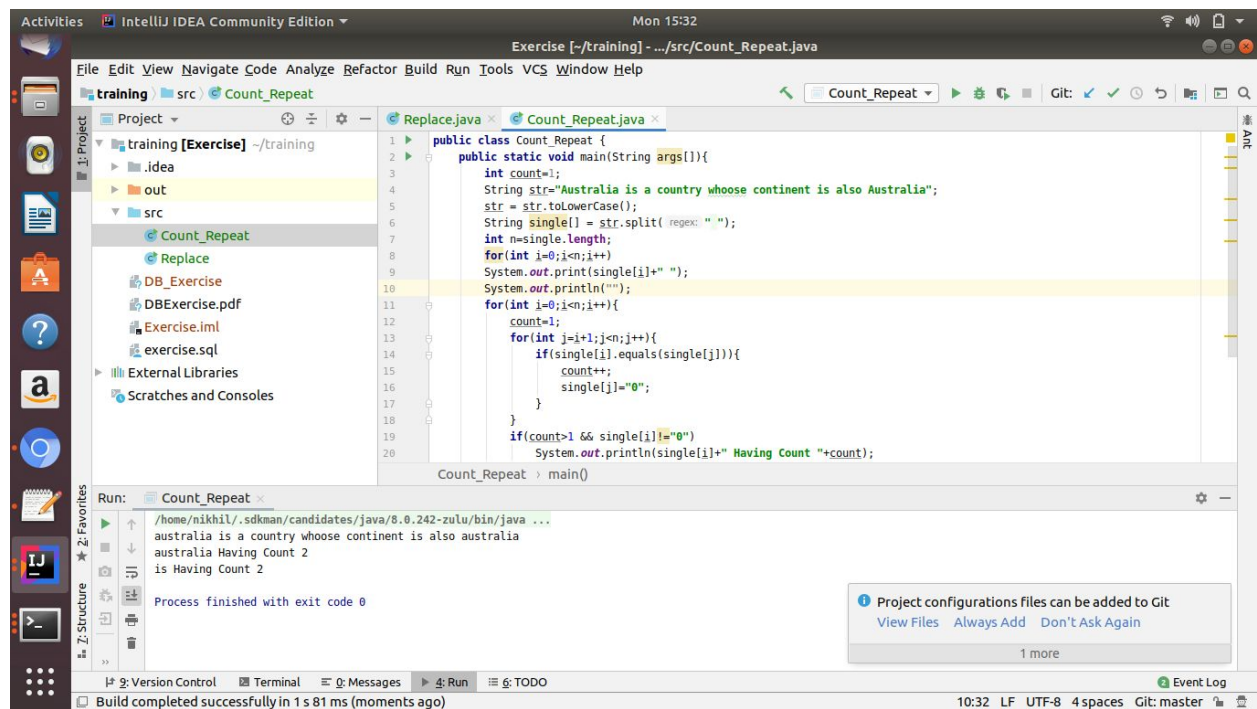

Code:-

```java
public class Replace {
    public static void main(String args[]){
        String str1="Nikhil is a good Human";
        String str2=str1.replace("good","Nice");
        System.out.println(str2);

    }
}
```

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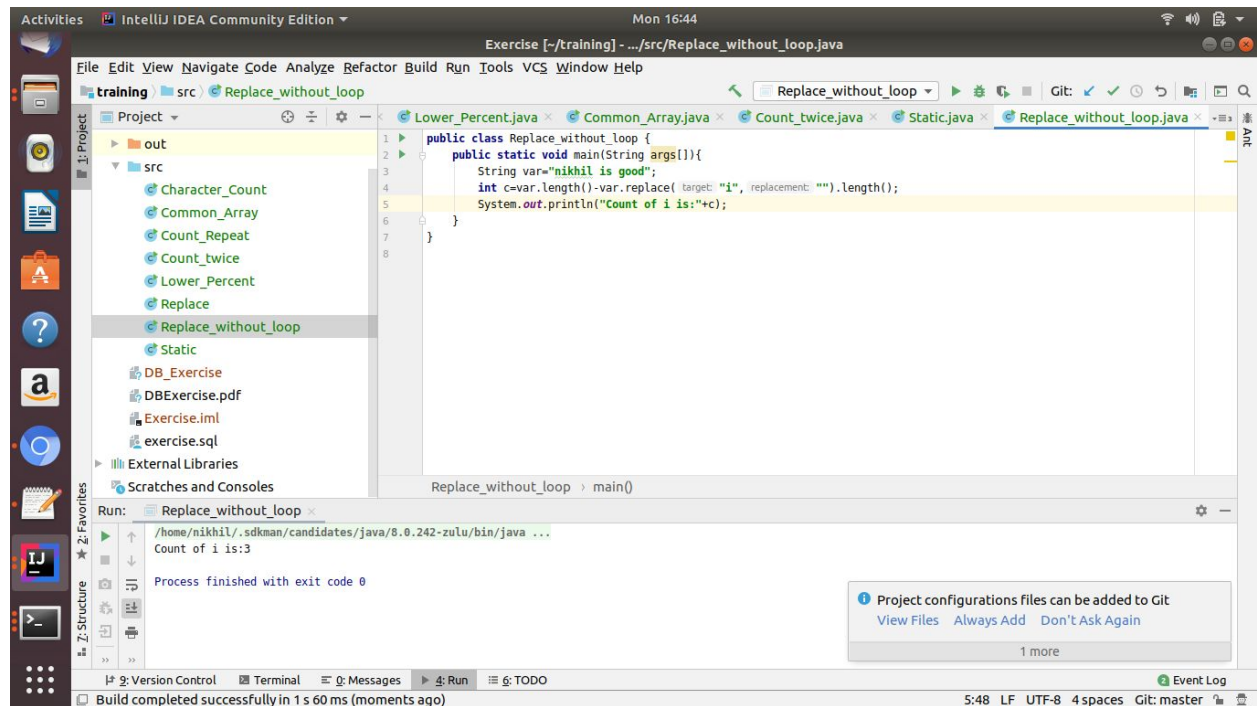
Ans.

Code:-

```java
public class Count_Repeat {
    public static void main(String args[]){
        int count=1;
        String str="Australia is a country whoose continent is also Australia";
        str = str.toLowerCase();
        String single[] = str.split(" ");
        int n=single.length;
        for(int i=0;i<n;i++)
        System.out.print(single[i]+" ");
        System.out.println("");
        for(int i=0;i<n;i++){
            count=1;
            for(int j=i+1;j<n;j++){
                if(single[i].equals(single[j])){
                    count++;
                    single[j]="0";
                }
            }
            if(count>1 && single[i]!="0")
                System.out.println(single[i]+" Having Count "+count);
        }

    }
}
```

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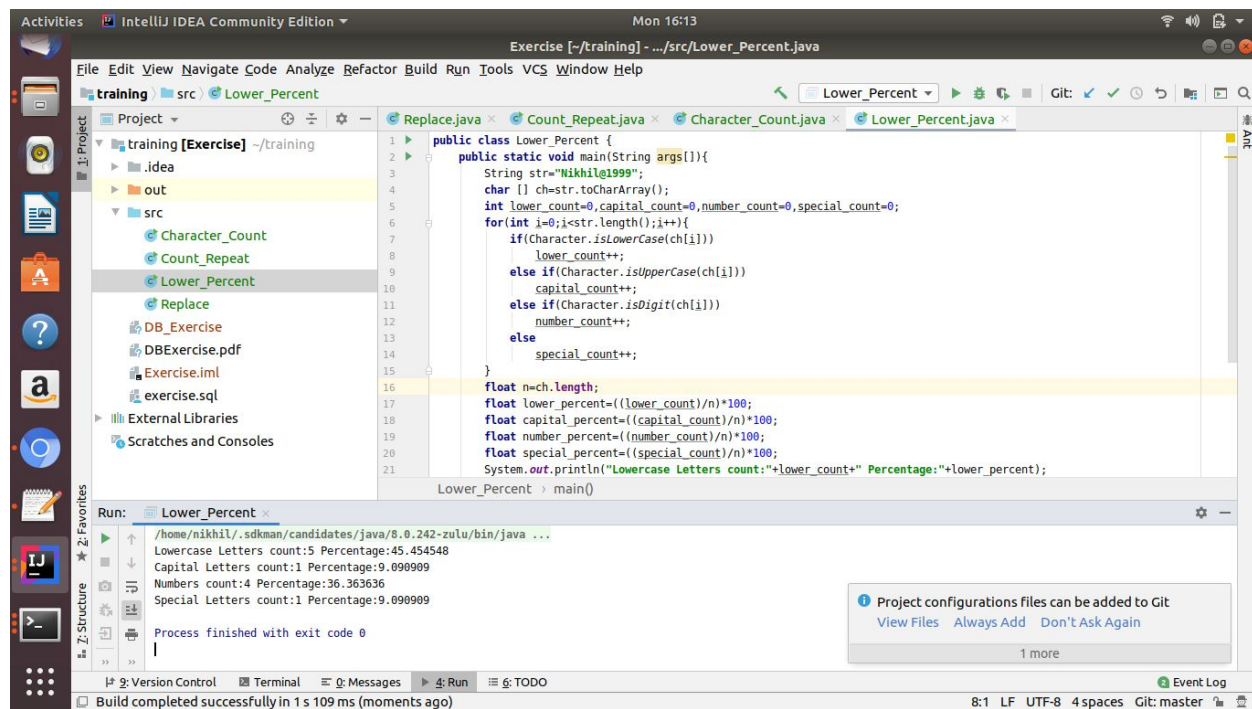
Ans.

Code:-

```java
public class Replace_without_loop {
    public static void main(String args[]){
        String var="nikhil is good";
        int c=var.length()-var.replace("i","").length();
        System.out.println("Count of i is:"+c);
    }
}
```

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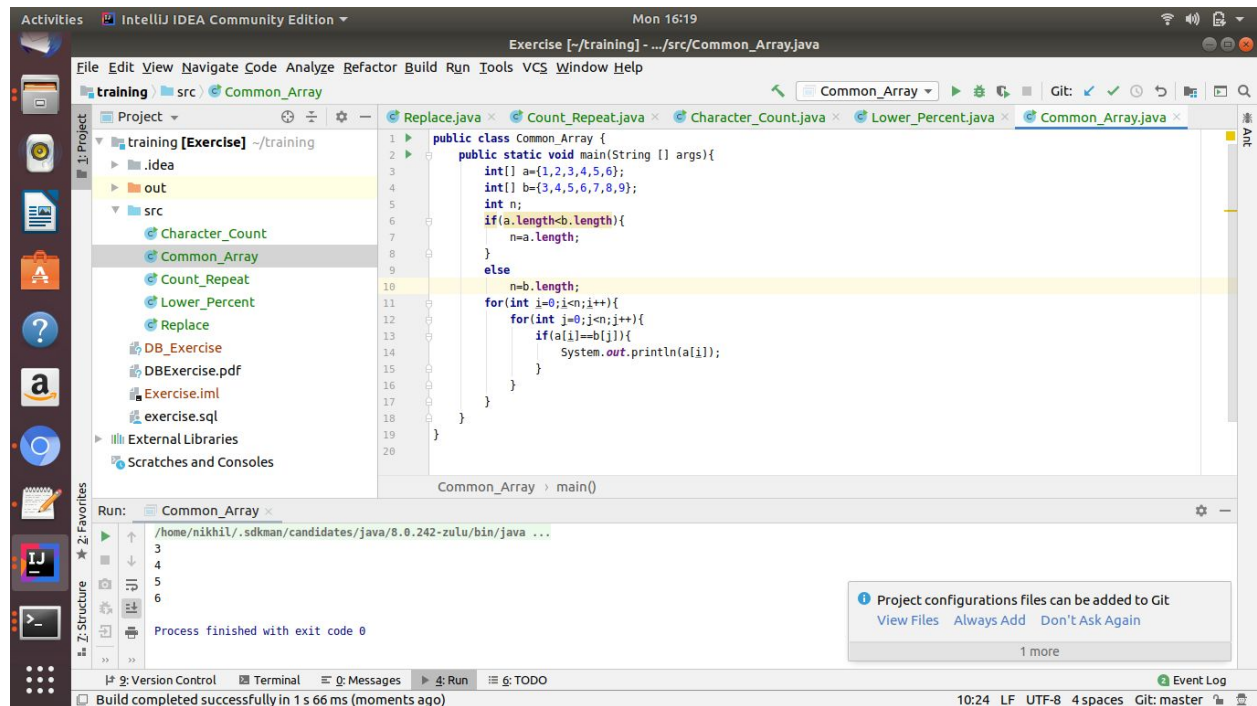
Ans.

Code:-

```java
public class Lower_Percent {
    public static void main(String args[]){
        String str="Nikhil@1999";
        char [] ch=str.toCharArray();
        int lower_count=0,capital_count=0,number_count=0,special_count=0;
        for(int i=0;i<str.length();i++){
            if(Character.isLowerCase(ch[i]))
                lower_count++;
            else if(Character.isUpperCase(ch[i]))
                capital_count++;
            else if(Character.isDigit(ch[i]))
                number_count++;
            else
                special_count++;
        }
        float n=ch.length;
        float lower_percent=((lower_count)/n)*100;
        float capital_percent=((capital_count)/n)*100;
        float number_percent=((number_count)/n)*100;
        float special_percent=((special_count)/n)*100;
        System.out.println("Lowercase Letters count:"+lower_count+" Percentage:"+lower_percent);
        System.out.println("Capital Letters count:"+capital_count+" Percentage:"+capital_percent);
        System.out.println("Numbers count:"+number_count+" Percentage:"+number_percent);
        System.out.println("Special Letters count:"+special_count+" Percentage:"+special_percent);
    }
}
```
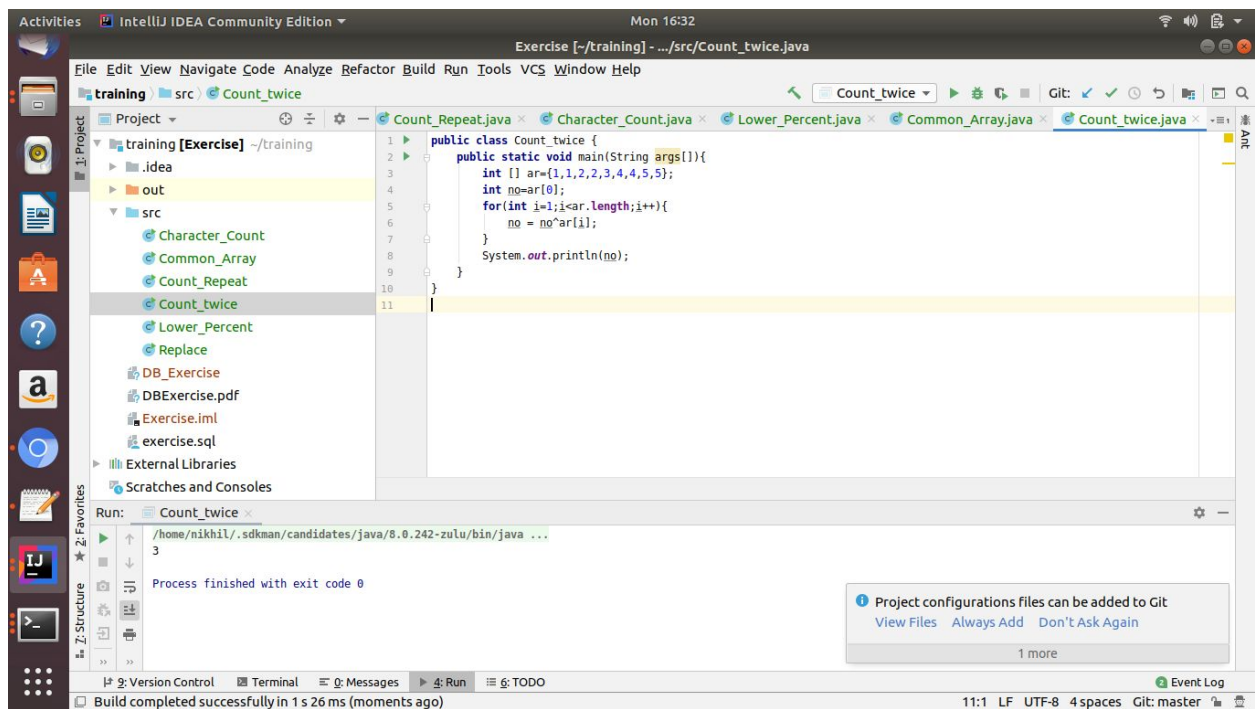
Q5. Find common elements between two arrays.
Ans.

Code:-

```java
public class Common_Array {
  public static void main(String [] args){
    int[] a={1,2,3,4,5,6};
    int[] b={3,4,5,6,7,8,9};
    int n;
    if(a.length<b.length){
      n=a.length;
    }
    else
      n=b.length;
    for(int i=0;i<n;i++){
      for(int j=0;j<n;j++){
        if(a[i]==b[j]){
          System.out.println(a[i]);
        }
      }
    }
  }
}
```

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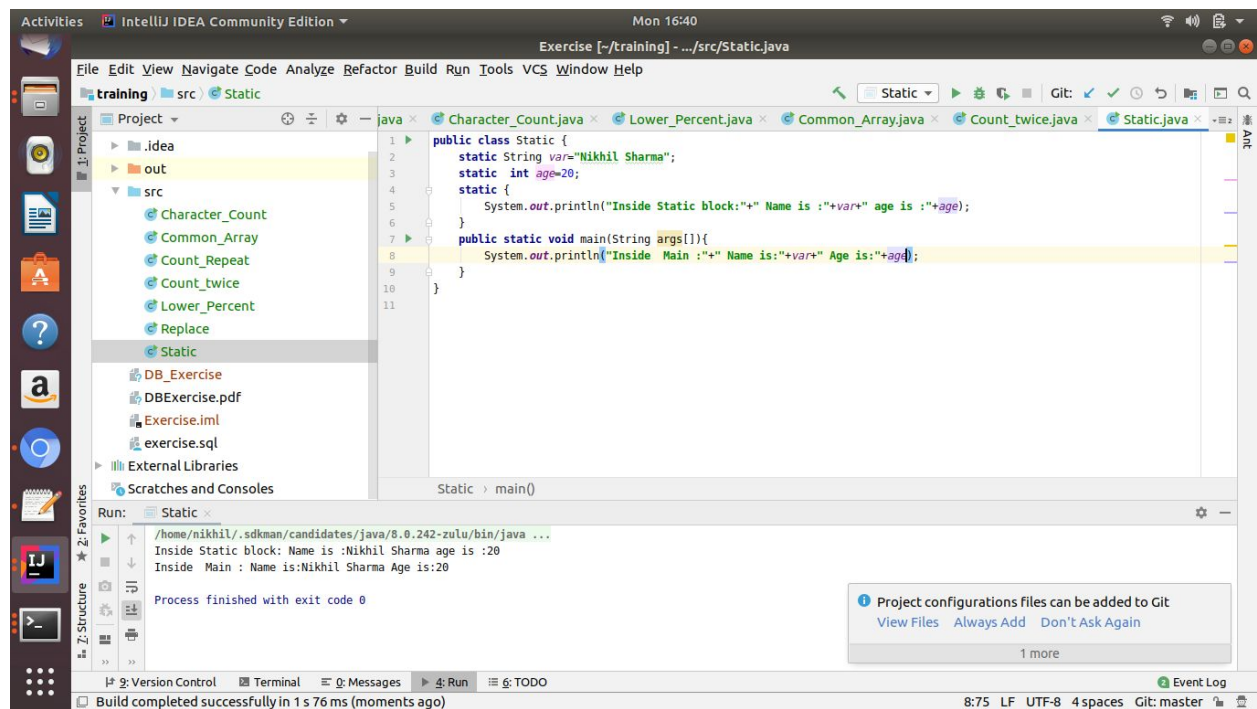
Ans.

Code:-

```java
public class Count_twice {
  public static void main(String args[]){
      int [] ar={1,1,2,2,3,4,4,5,5};
      int no=ar[0];
      for(int i=1;i<ar.length;i++){
         no = no^ar[i];
      }
      System.out.println(no);
  }
}
```

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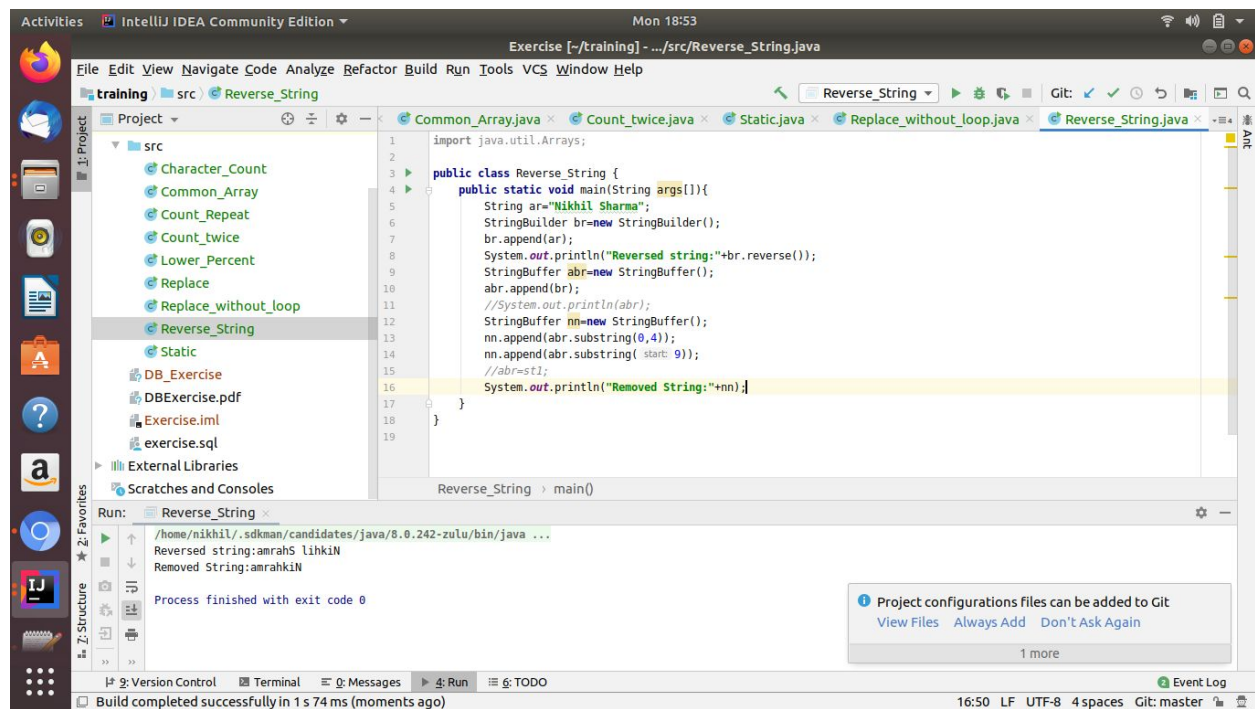
Ans.

Code:-

```java
public class Static {
    static String var="Nikhil Sharma";
    static  int age=20;
    static {
        System.out.println("Inside Static block:"+" Name is :"+var+" age is :"+age);
    }
    public static void main(String args[]){
        System.out.println("Inside  Main :"+" Name is:"+var+" Age is:"+age);
    }
}
```

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.

Code:-
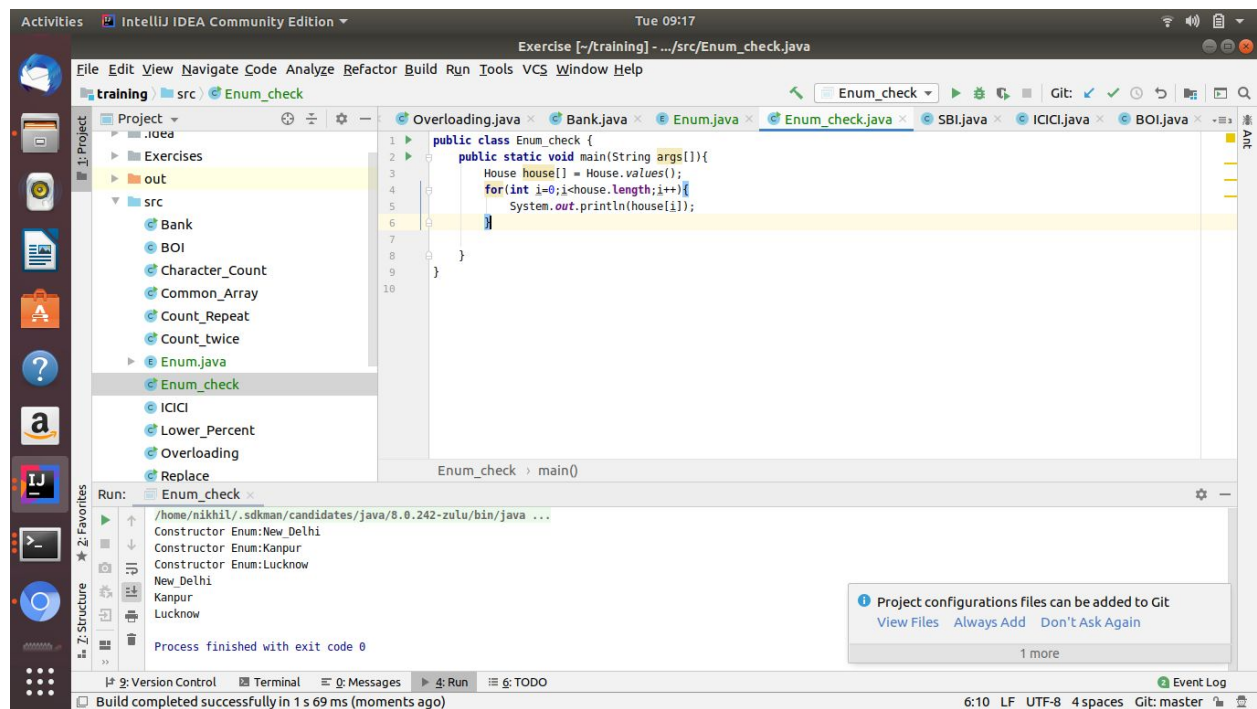
```java
import java.util.Arrays;

public class Reverse_String {
    public static void main(String args[]){
        String ar="Nikhil Sharma";
        StringBuilder br=new StringBuilder();
        br.append(ar);
        System.out.println("Reversed string:"+br.reverse());
        StringBuffer abr=new StringBuffer();
        abr.append(br);
        //System.out.println(abr);
        StringBuffer nn=new StringBuffer();
        nn.append(abr.substring(0,4));
        nn.append(abr.substring(9));
        //abr=st1;
        System.out.println("Removed String:"+nn);
    }
}
```

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

Ans.

Code:-
Enum_check.java:-

```java
public class Enum_check {
  public static void main(String args[]){
    House house[] = House.values();
    for(int i=0;i<house.length;i++){
      System.out.println(house[i]);
    }

  }
}
```

Enum.java:-

```java
enum House {
  New_Delhi,Kanpur,Lucknow;
  private House(){
    System.out.println("Constructor Enum:"+this.toString());
  }

}
```
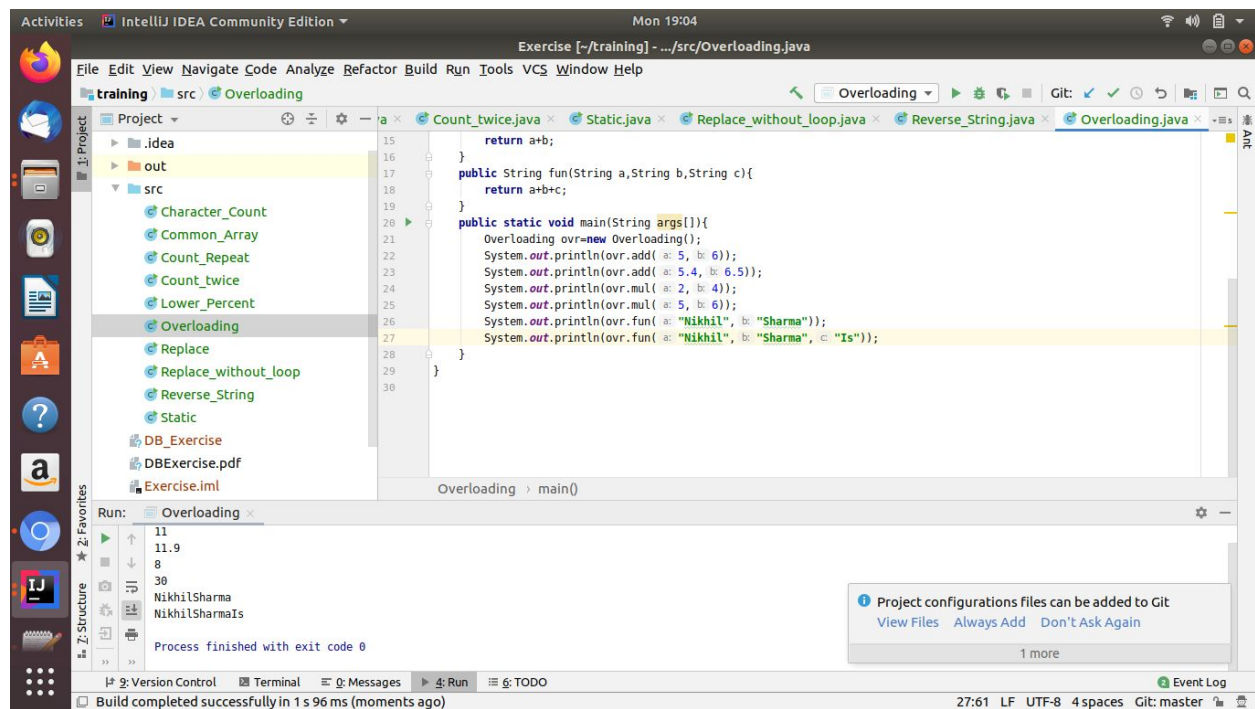
Q10.Write a single program for following operation using overloading
  A) Adding 2 integer number
  B) Adding 2 double
  C) multiplying 2 float
  D) multiplying 2 int
  E) concate 2 string
  F) Concate 3 String
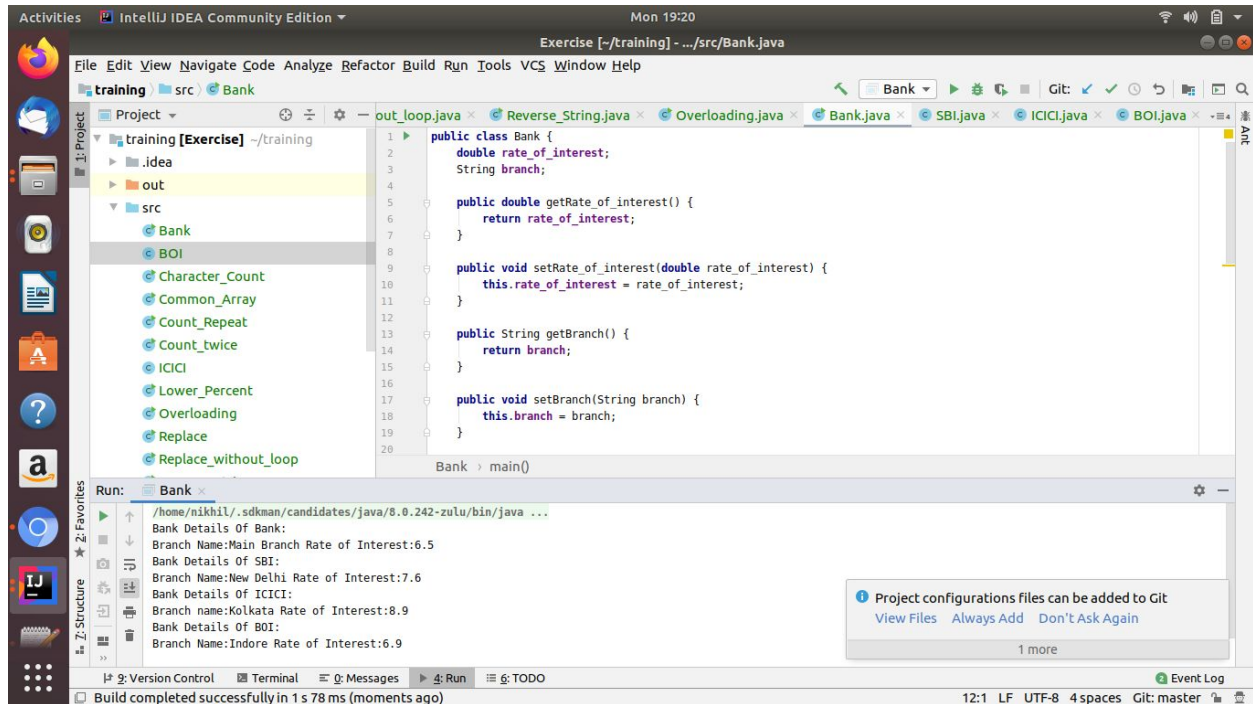
Ans.

Code:-

```java
public class Overloading {
    public int add(int a,int b){
        return a+b;
    }
    public double add(double a,double b){
        return a+b;
    }
    public float mul(float a,float b){
        return a*b;
    }
    public int mul(int a,int b){
        return a*b;
    }
    public String fun(String a, String b){
        return a+b;
    }
    public String fun(String a,String b,String c){
        return a+b+c;
    }
    public static void main(String args[]){
        Overloading ovr=new Overloading();
        System.out.println(ovr.add(5,6));
        System.out.println(ovr.add(5.4,6.5));
        System.out.println(ovr.mul(2,4));
        System.out.println(ovr.mul(5,6));
        System.out.println(ovr.fun("Nikhil","Sharma"));
        System.out.println(ovr.fun("Nikhil","Sharma","Is"));
```

```
    }
}
```

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.

Code:-
Bank.java:-
```java
public class Bank {
  double rate_of_interest;
  String branch;

  public double getRate_of_interest() {
    return rate_of_interest;
  }

  public void setRate_of_interest(double rate_of_interest) {
    this.rate_of_interest = rate_of_interest;
  }

  public String getBranch() {
    return branch;
  }

  public void setBranch(String branch) {
    this.branch = branch;
  }
```

```java
    public static void main(String args[]){
        Bank bank = new Bank();
        SBI sbi = new SBI();
        ICICI icici = new ICICI();
        BOI boi = new BOI();
        bank.setBranch("Main Branch");
        bank.setRate_of_interest(6.5);
        sbi.setBranch("New Delhi");
        sbi.setRate_of_interest(7.6);
        icici.setBranch("Kolkata");
        icici.setRate_of_interest(8.9);
        boi.setBranch("Indore");
        boi.setRate_of_interest(6.9);
        System.out.println("Bank Details Of Bank:");
        System.out.println("Branch Name:"+bank.getBranch()+" Rate of Interest:"+bank.getRate_of_interest());
        System.out.println("Bank Details Of SBI:");
        System.out.println("Branch Name:"+sbi.getBranch()+" Rate of Interest:"+sbi.getRate_of_interest());
        System.out.println("Bank Details Of ICICI:");
        System.out.println("Branch name:"+icici.getBranch()+" Rate of Interest:"+icici.getRate_of_interest());
        System.out.println("Bank Details Of BOI:");
        System.out.println("Branch Name:"+boi.getBranch()+" Rate of Interest:"+boi.getRate_of_interest());



    }
}
```

SBI.java:-

```java
public class SBI {
  double rate_of_interest;
  String branch;

  public double getRate_of_interest() {
      return rate_of_interest;
  }

  public void setRate_of_interest(double rate_of_interest) {
      this.rate_of_interest = rate_of_interest;
  }

  public String getBranch() {
      return branch;
  }

  public void setBranch(String branch) {
      this.branch = branch;
  }
}
```

ICICI.java:-

```java
public class ICICI {
```

```java
    double rate_of_interest;
    String branch;

    public double getRate_of_interest() {
        return rate_of_interest;
    }

    public void setRate_of_interest(double rate_of_interest) {
        this.rate_of_interest = rate_of_interest;
    }

    public String getBranch() {
        return branch;
    }

    public void setBranch(String branch) {
        this.branch = branch;
    }
}
```

BOI.java:-

```java
public class BOI {
    public double getRate_of_interest() {
        return rate_of_interest;
    }

    public void setRate_of_interest(double rate_of_interest) {
        this.rate_of_interest = rate_of_interest;
    }

    public String getBranch() {
        return branch;
    }

    public void setBranch(String branch) {
        this.branch = branch;
    }

    double rate_of_interest;
    String branch;

}
```