

JAVA 8 FEATURES

1. Write the following a functional interface and implement it using lambda:
 1. First number is greater than second number or not Parameter (int ,int) Return boolean
 2. Increment the number by 1 and return incremented value Parameter (int) Return int
 3. Concatination of 2 string Parameter (String , String) Return (String)
 4. Convert a string to uppercase and return . Parameter (String) Return (String)
2. Create a functional interface whose method takes 2 integers and return one integer.
3. Using (instance) Method reference create and apply add and subtract method and using (Static) Method reference create and apply multiplication method for the functional interface created.
4. Create an Employee Class with instance variables (String) name, (Integer)age, (String)city and get the instance of the Class using constructor reference
5. Implement following functional interfaces from java.util.function using lambdas:
 1. (1) Consumer
 2. (2) Supplier
 3. (3) Predicate
 4. (4) Function
6. Create and access default and static method of an interface.
7. Override the default method of the interface.
8. Implement multiple inheritance with default method inside interface.
9. Collect all the even numbers from an integer list.
10. Sum all the numbers greater than 5 in the integer list.
11. Find average of the number inside integer list after doubling it.
12. Find the first even number in the integer list which is greater than 3.

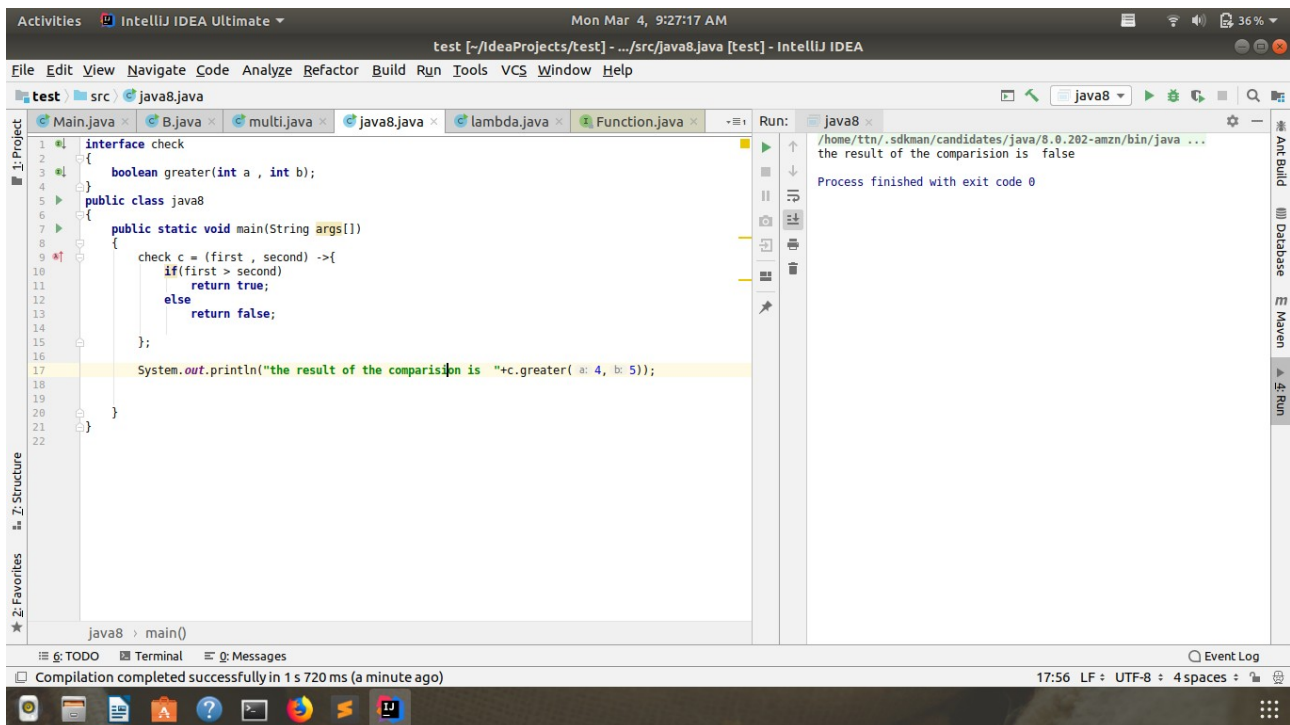
ANSWERS

Q1Write the following a functional interface and implement it using lambda:

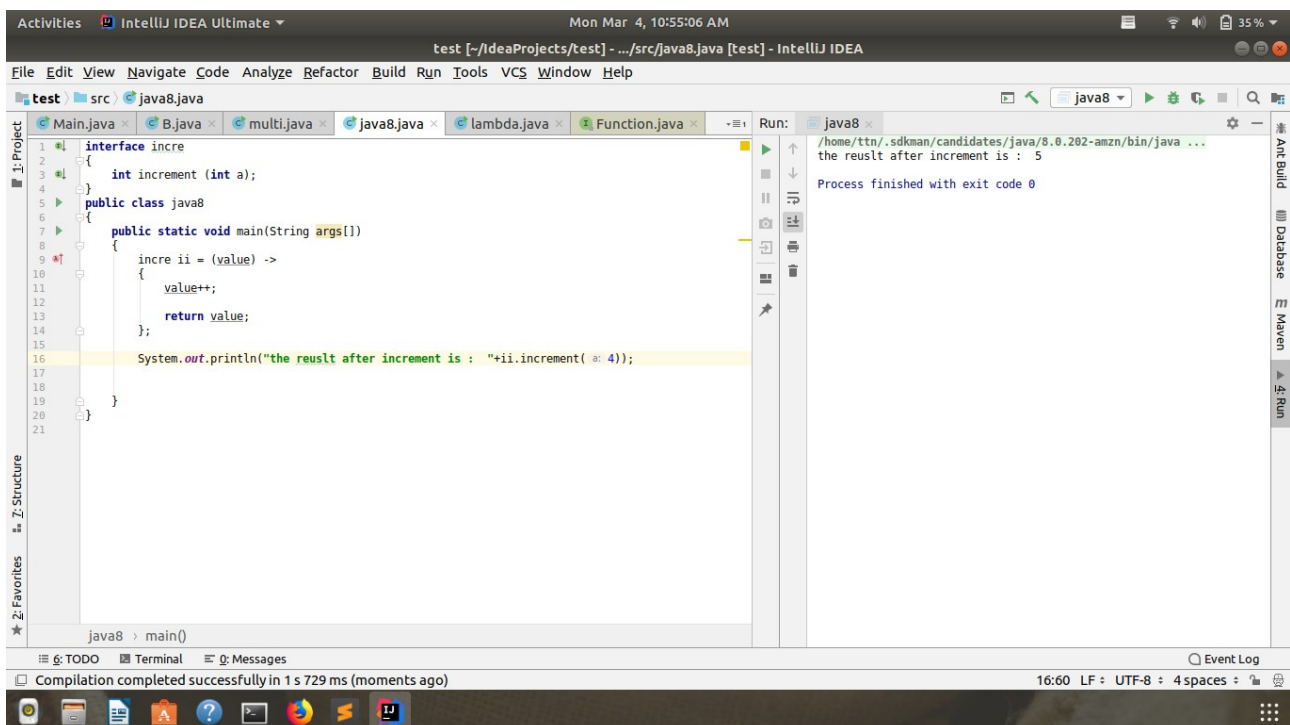
ANS.

1.]

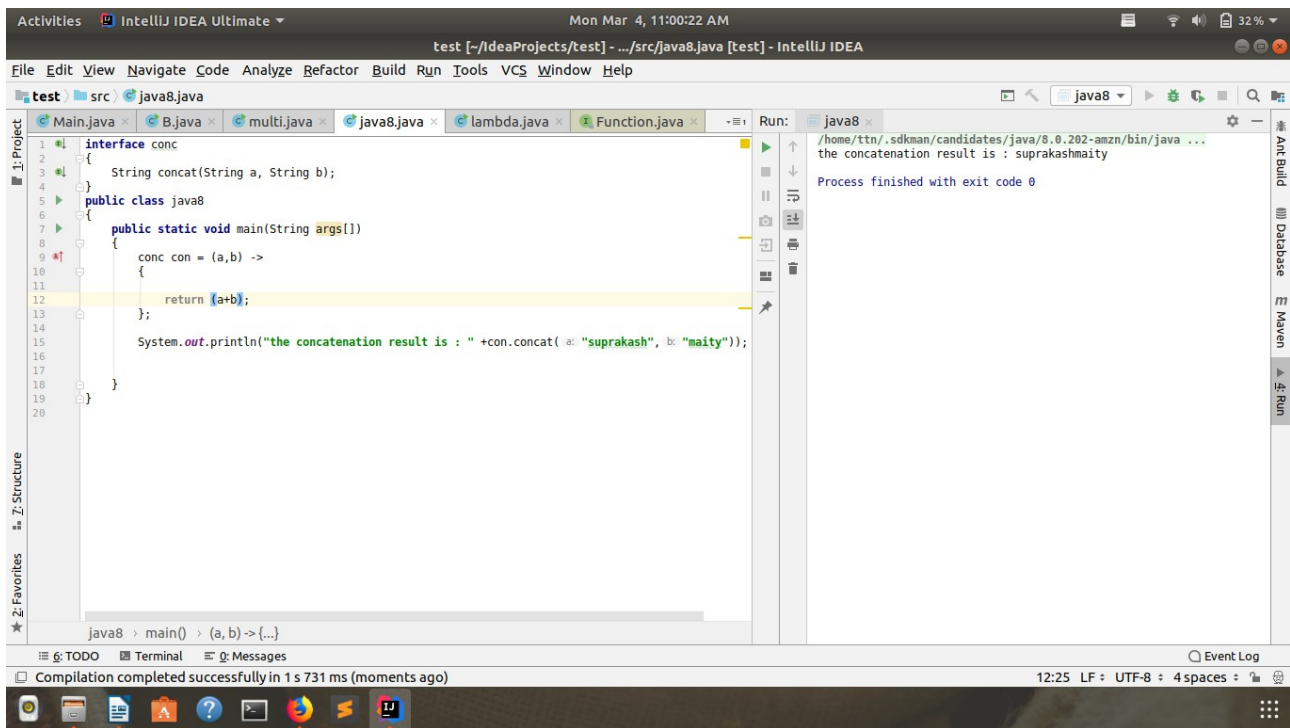
First number is greater than second number or not Parameter (int ,int) Return boolean



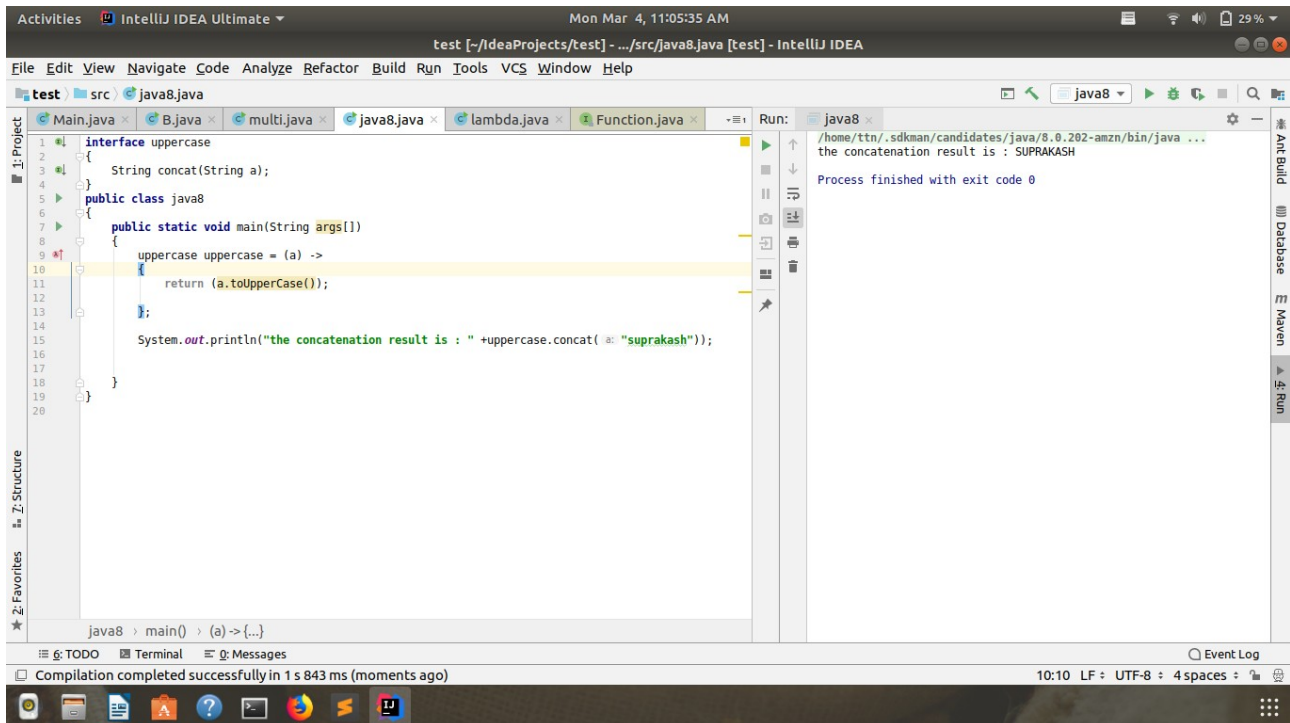
2] Increment the number by 1 and return incremented value Parameter (int) Return int
ANS.



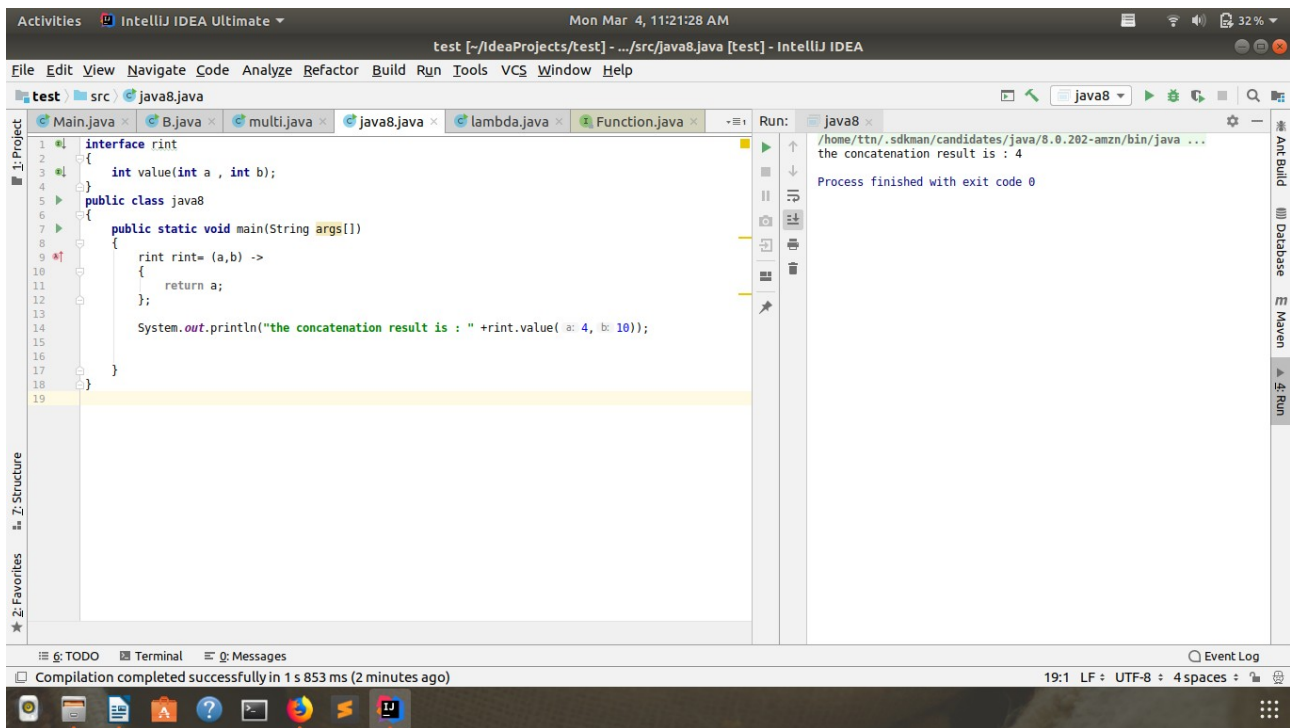
3] Concatination of 2 string Parameter (String , String) Return (String)
ANS.



4) Convert a string to uppercase and return . Parameter (String) Return (String)
ANS.

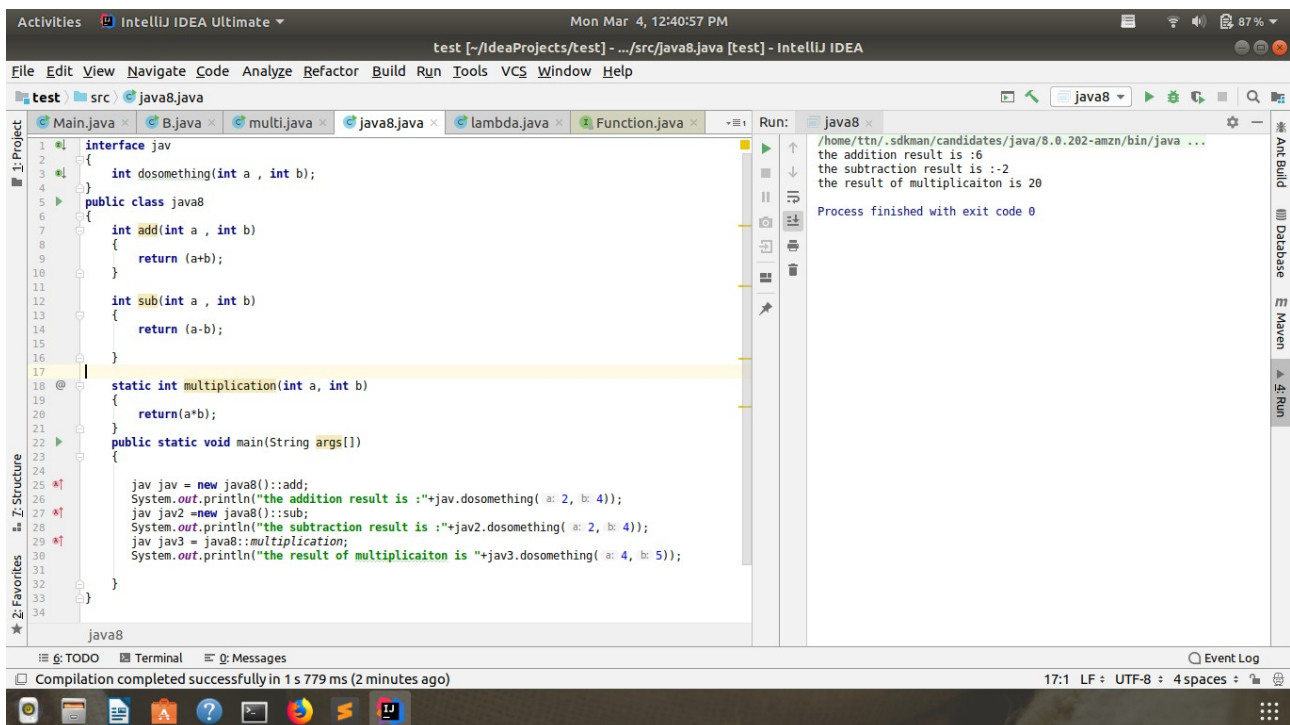


Q2.Create a functional interface whose method takes 2 integers and return one integer.
ANS.



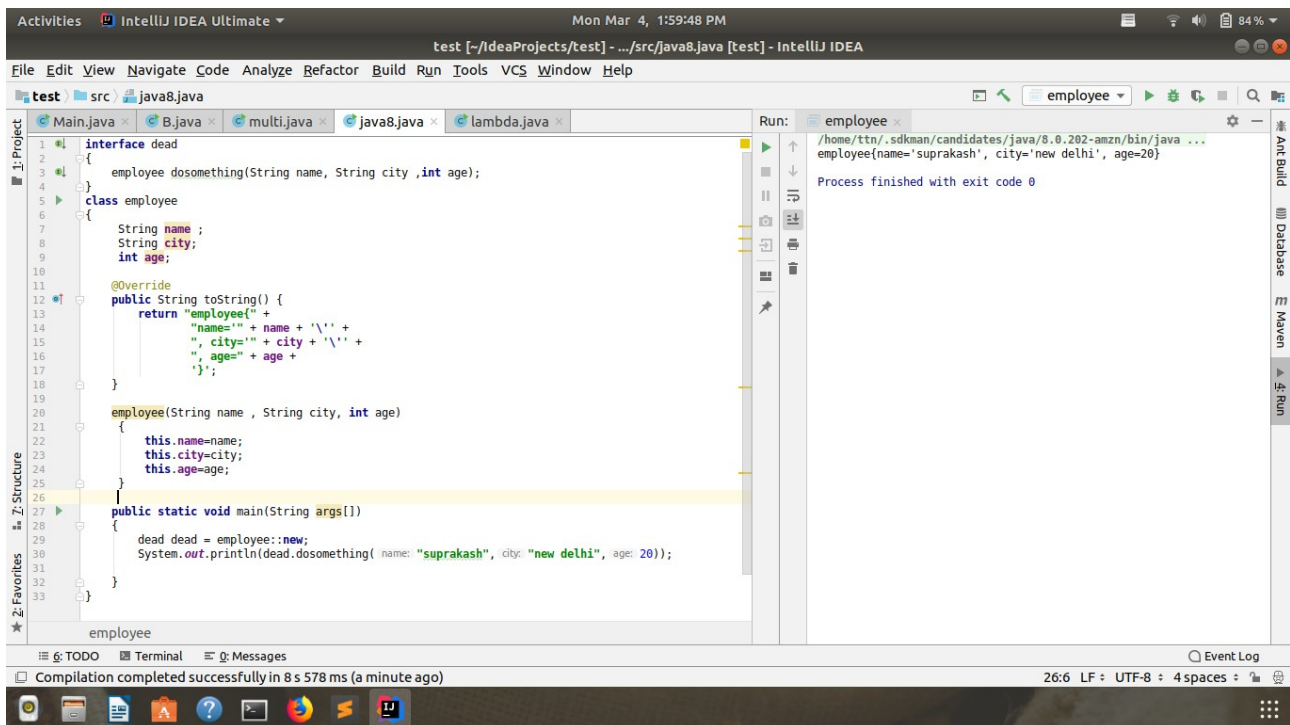
Q3.Using (instance) Method reference create and apply add and subtract method and using (Static) Method reference create and apply multiplication method for the functional interface created.

ANS.



Q4.Create an Employee Class with instance variables (String) name, (Integer)age, (String)city and get the instance of the Class using constructor reference

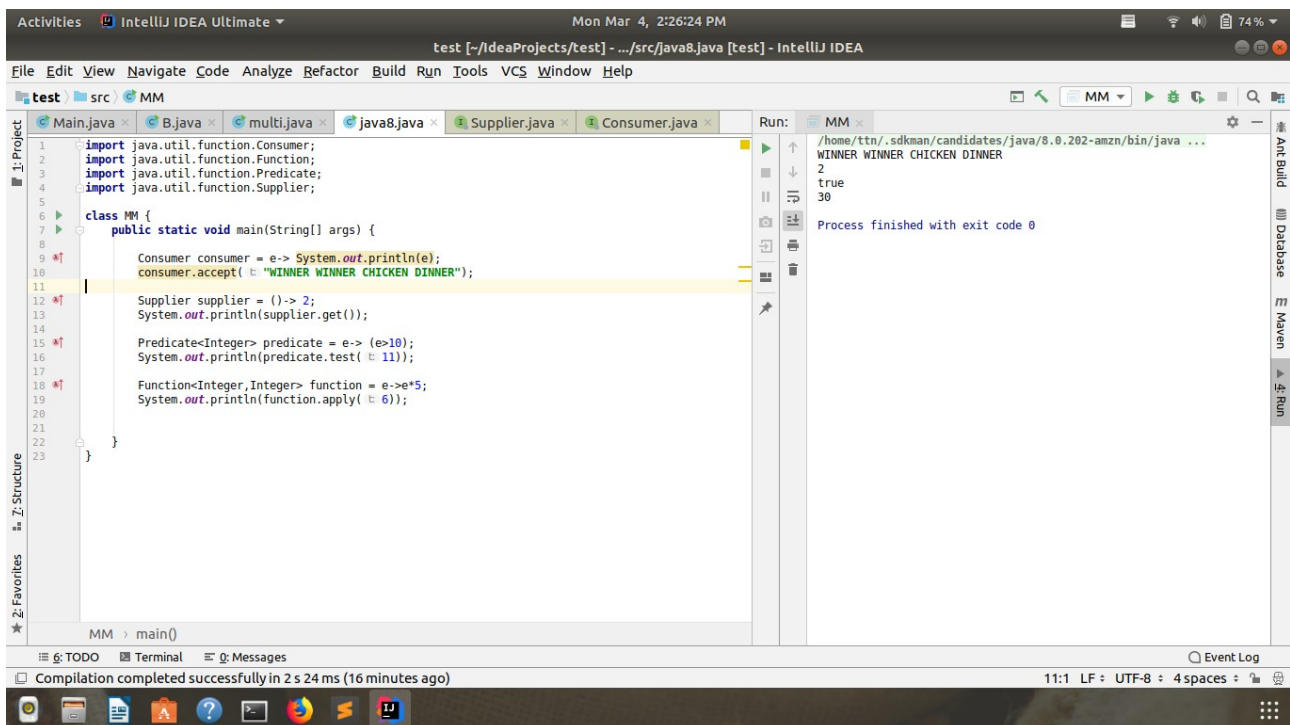
ANS.



Q5. Implement following functional interfaces from java.util.function using lambdas:

- (1) Consumer
- (2) Supplier
- (3) Predicate
- (4) Function

ANS.



Q6. Create and access default and static method of an interface.

ANS.

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

```
1 interface java8
2 {
3     default void method1()
4     {
5         System.out.println("this is default block");
6     }
7 }
8 static void method2()
9 {
10    System.out.println("this is static block");
11 }
12 }
13
14 class java8feat implements java8
15 {
16     public static void main(String args[])
17     {
18
19         java8feat jv = new java8feat();
20         jv.method1();
21         java8.method2();
22     }
23 }
24 }
```

The Run window on the right shows the output of the program:

```
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
this is default block
this is static block
Process finished with exit code 0
```

The status bar at the bottom indicates 'Compilation completed successfully in 1 s 708 ms (3 minutes ago)'.

Q7. Override the default method of the interface.

ANS.

The screenshot shows the IntelliJ IDEA IDE with the same project 'test'. The main editor displays the following code:

```
1 interface java8
2 {
3     default void method1()
4     {
5         System.out.println("this is default block");
6     }
7 }
8
9 class java8feat implements java8
10 {
11     public void method1()
12     {
13         System.out.println("this is the changed text");
14     }
15 }
16
17 public static void main(String args[])
18 {
19
20     java8feat jv = new java8feat();
21     jv.method1();
22 }
23 }
```

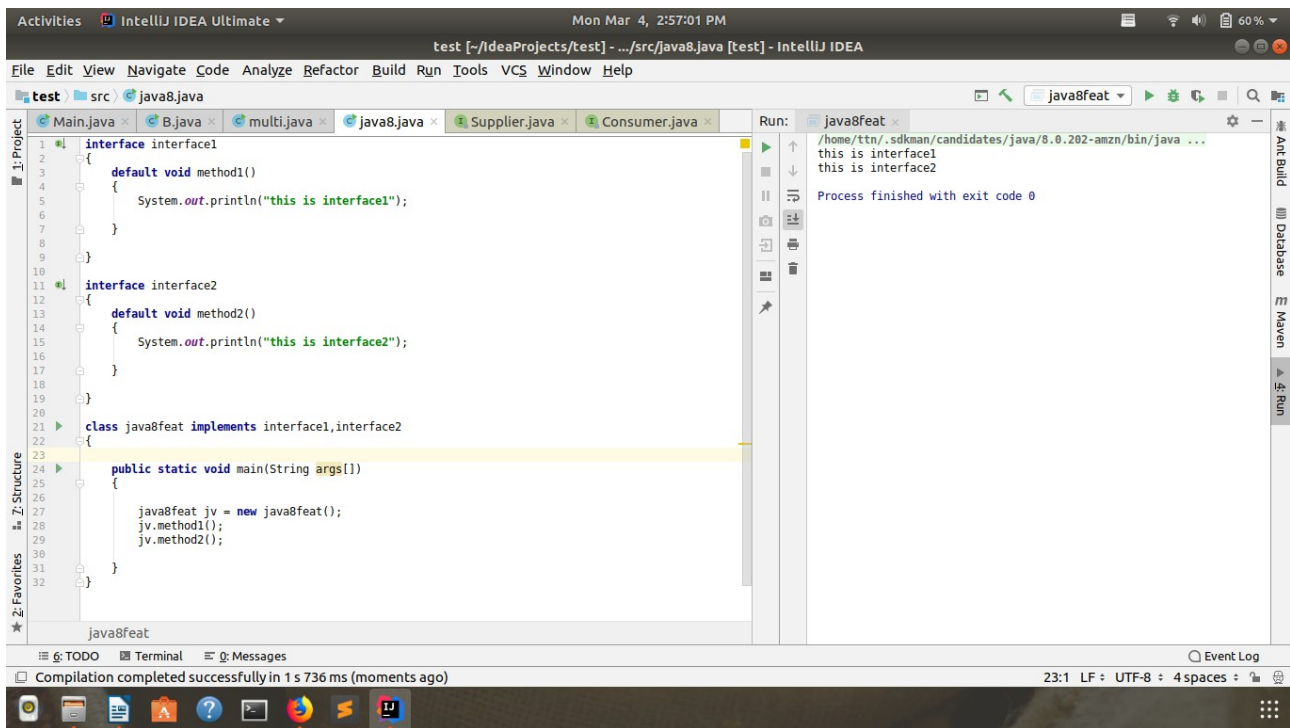
The Run window on the right shows the output of the program:

```
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
this is the changed text
Process finished with exit code 0
```

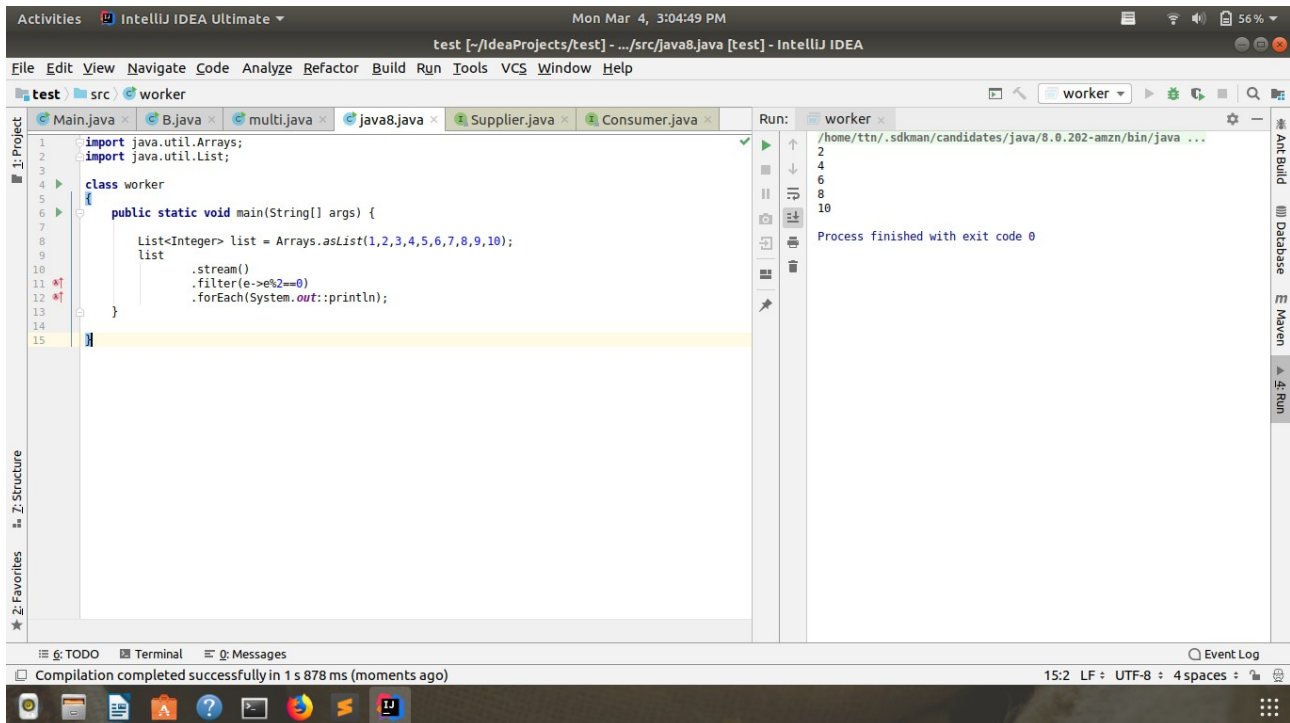
The status bar at the bottom indicates 'Compilation completed successfully in 1 s 967 ms (a minute ago)'.

Q8. Implement multiple inheritance with default method inside interface.

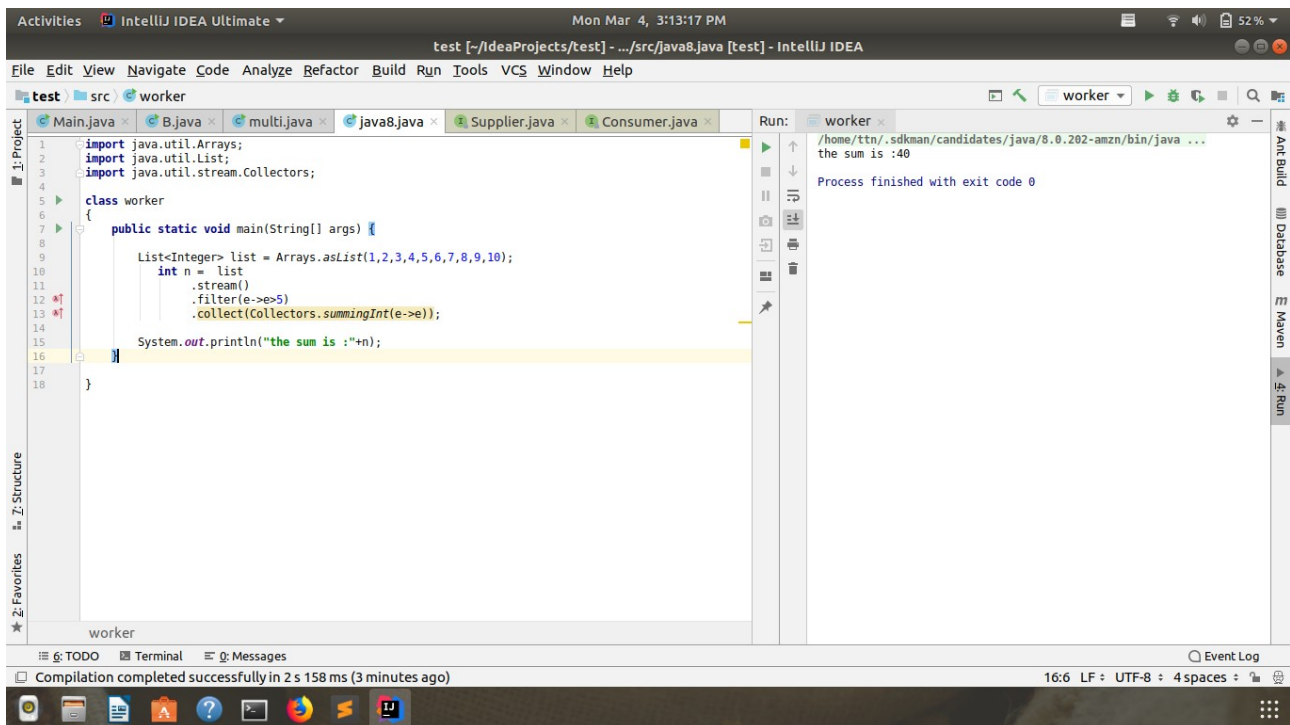
ANS.



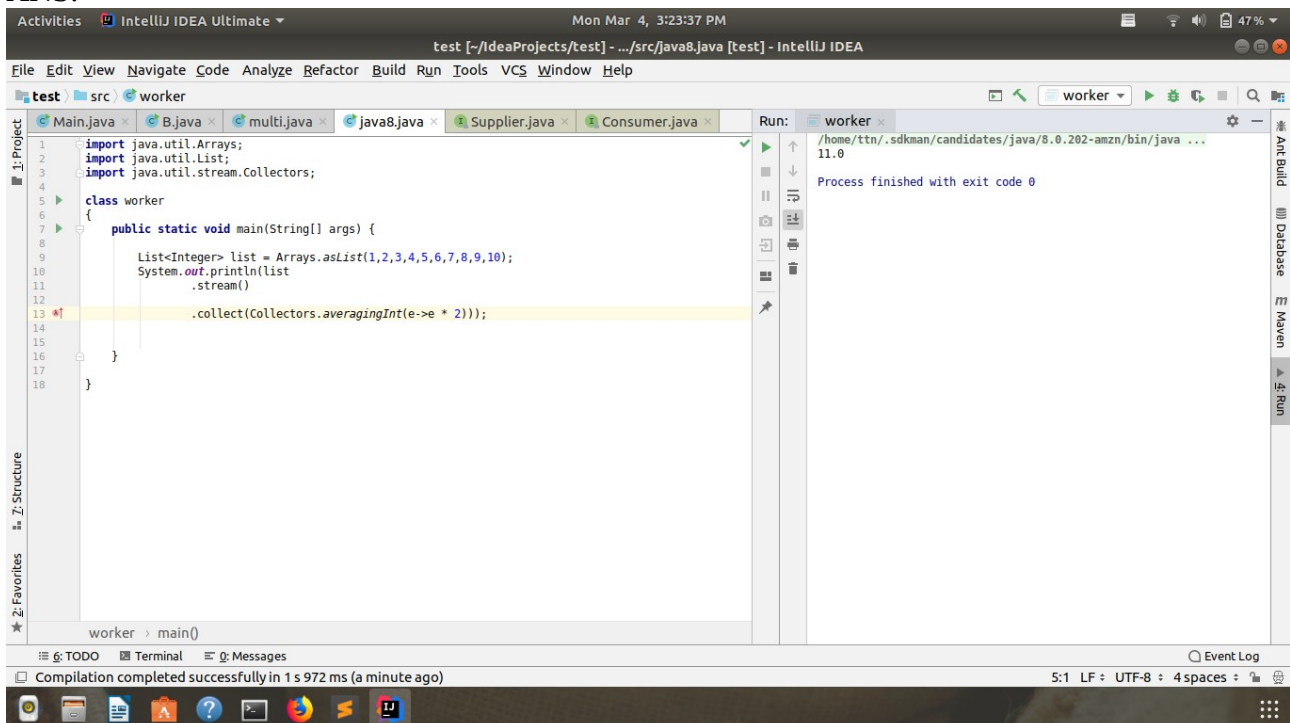
Q9. Collect all the even numbers from an integer list.
ANS.



Q10. Sum all the numbers greater than 5 in the integer list.
ANS.



Q11. Find average of the number inside integer list after doubling it.
ANS.



Q12. Find the first even number in the integer list which is greater than 3.
ANS.

