Task 3

HashMap Practice Problems

1) How do you retrieve all the values present in a HashMap?
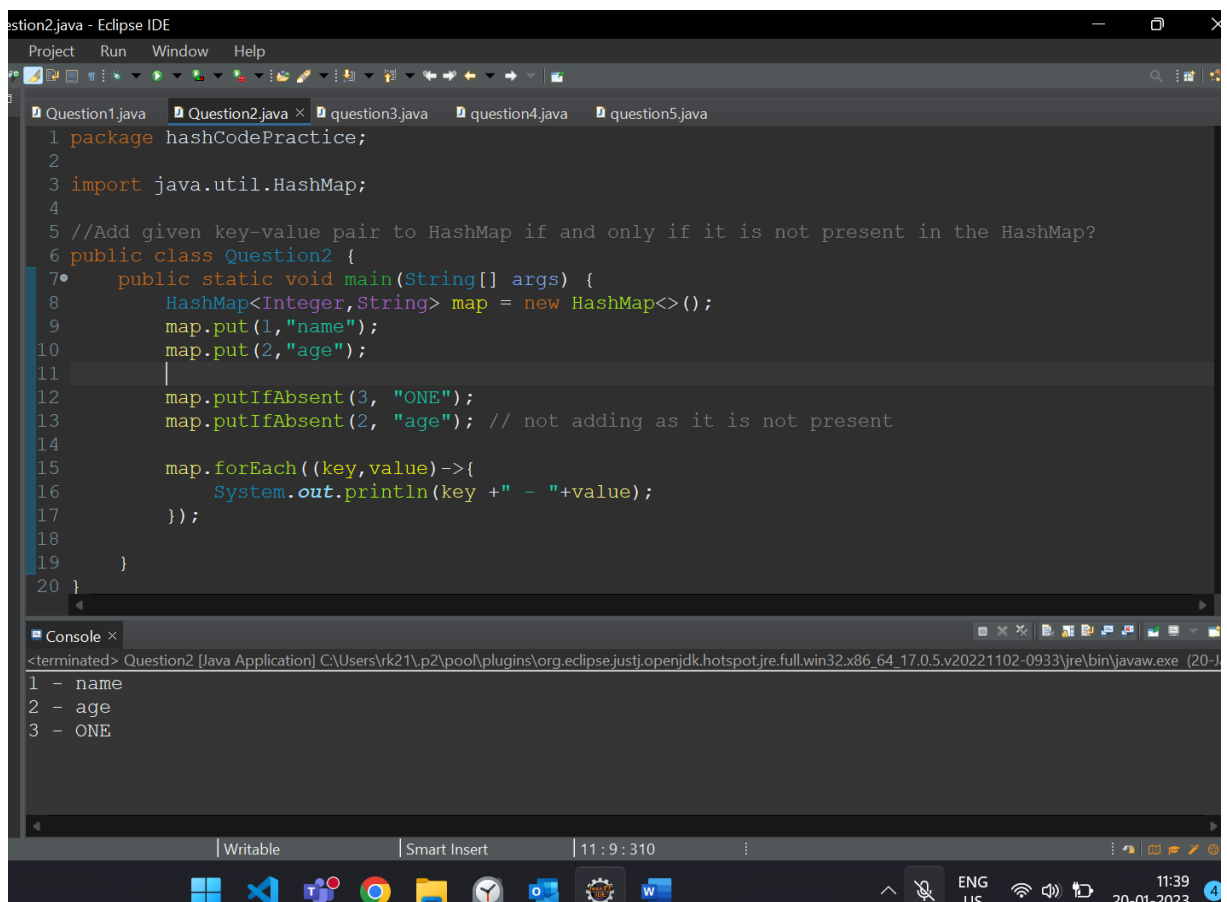
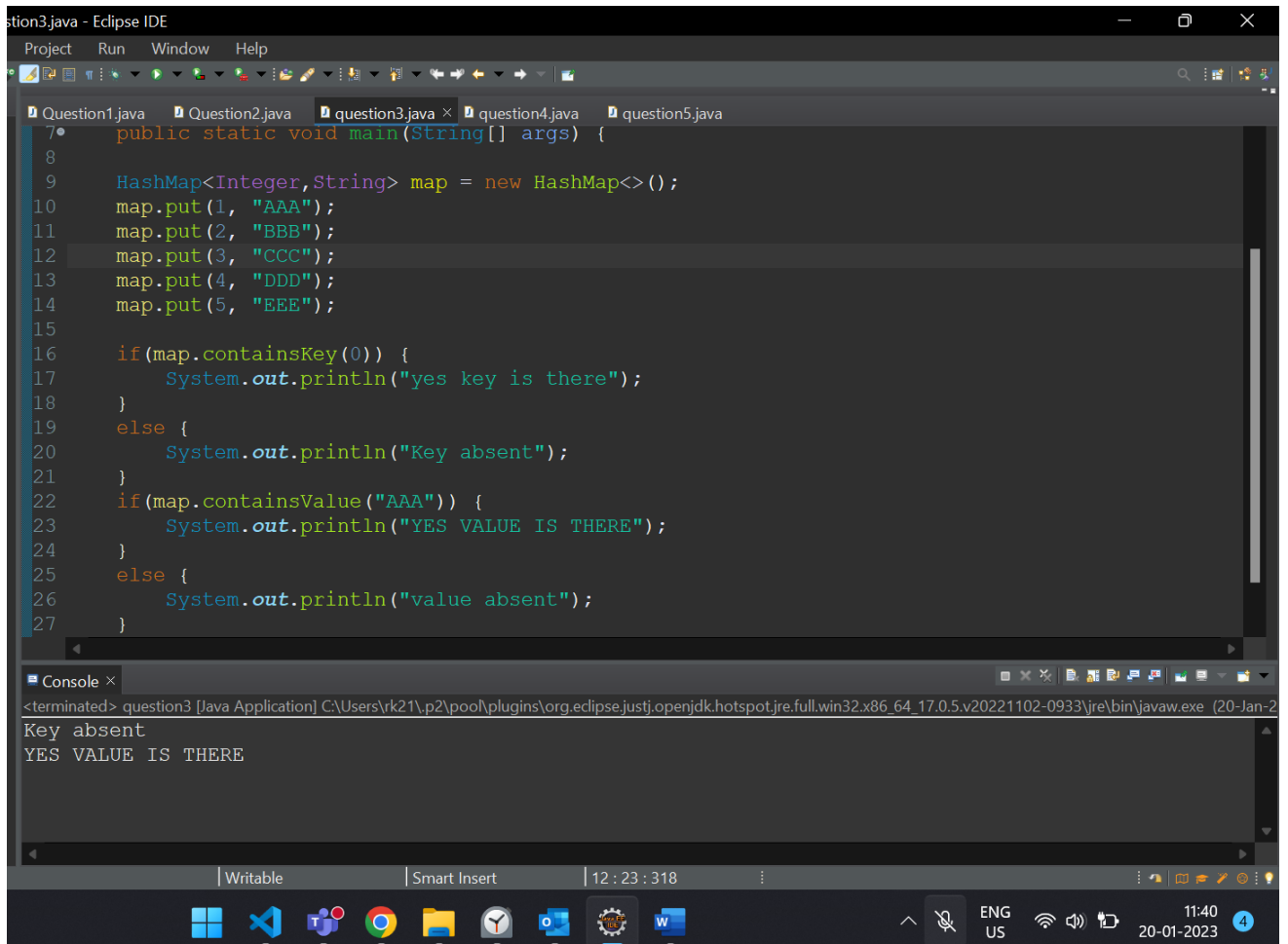2)   Add given key-value pair to HashMap if and only if it is not present in the HashMap?


```java
1 package hashCodePractice;
2
3 import java.util.HashMap;
4
5 //Add given key-value pair to HashMap if and only if it is not present in the HashMap?
6 public class Question2 {
7     public static void main(String[] args) {
8         HashMap<Integer,String> map = new HashMap<>();
9         map.put(1,"name");
10        map.put(2,"age");
11
12        map.putIfAbsent(3, "ONE");
13        map.putIfAbsent(2, "age"); // not adding as it is not present
14
15        map.forEach((key,value)->{
16            System.out.println(key +" - "+value);
17        });
18
19    }
20 }
```

Console

<terminated> Question2 [Java Application] C:\Users\rk21\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.5.v20221102-0933\jre\bin\javaw.exe (20-J

```
1 - name
2 - age
3 - ONE
```

3) How do you check whether a particular key/value exist in a HashMap?


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

        HashMap<Integer,String> map = new HashMap<>();
        map.put(1, "AAA");
        map.put(2, "BBB");
        map.put(3, "CCC");
        map.put(4, "DDD");
        map.put(5, "EEE");

        if(map.containsKey(0)) {
            System.out.println("yes key is there");
        }
        else {
            System.out.println("Key absent");
        }
        if(map.containsValue("AAA")) {
            System.out.println("YES VALUE IS THERE");
        }
        else {
            System.out.println("value absent");
        }
```
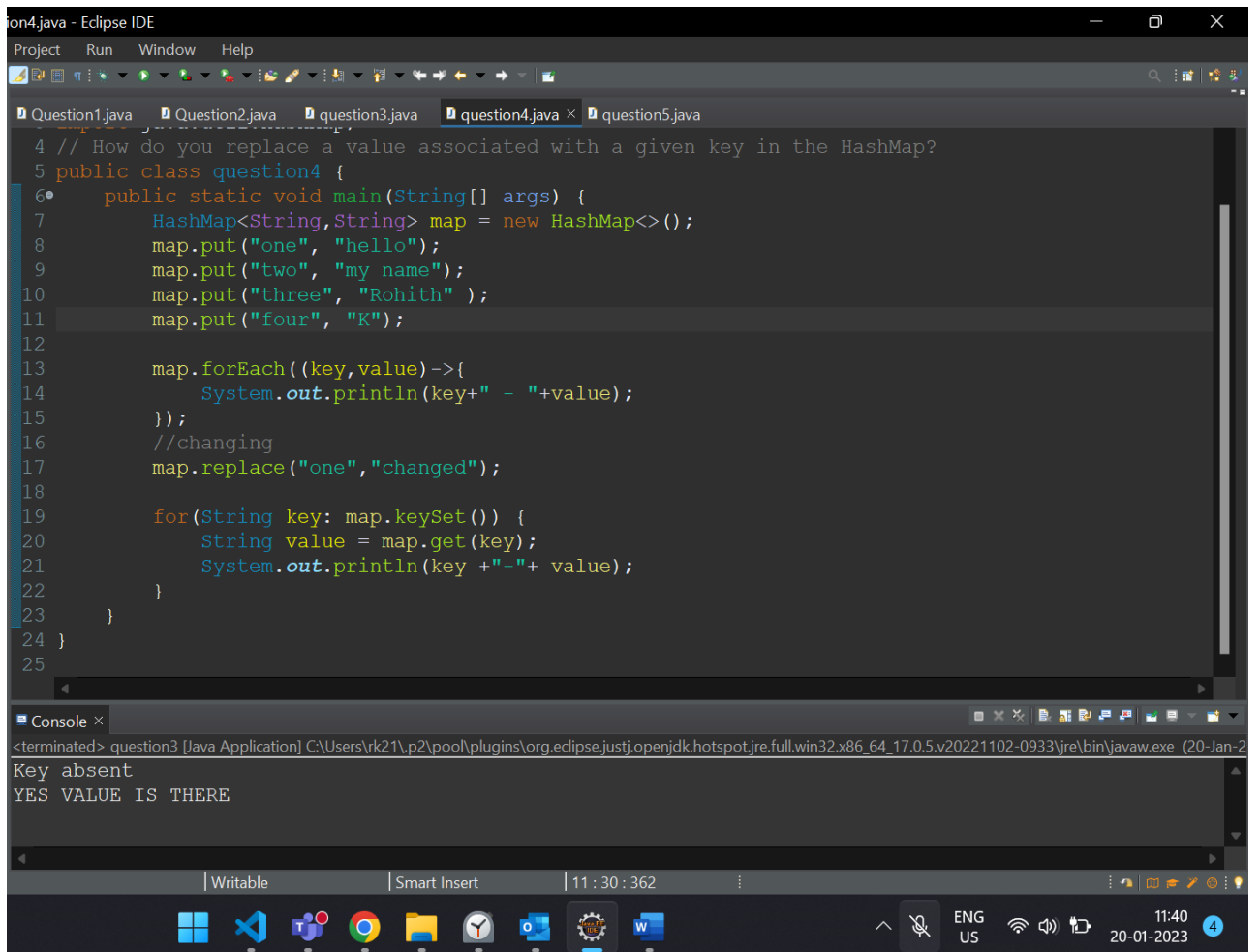
Console output:
```
Key absent
YES VALUE IS THERE
```

4) How do you replace a value associated with a given key in the HashMap?

```java
4 // How do you replace a value associated with a given key in the HashMap?
5 public class question4 {
6    public static void main(String[] args) {
7        HashMap<String,String> map = new HashMap<>();
8        map.put("one", "hello");
9        map.put("two", "my name");
10       map.put("three", "Rohith" );
11       map.put("four", "K");
12
13       map.forEach((key,value)->{
14           System.out.println(key+" - "+value);
15       });
16       //changing
17       map.replace("one","changed");
18
19       for(String key: map.keySet()) {
20           String value = map.get(key);
21           System.out.println(key +"-"+ value);
22       }
23   }
24 }
25
```
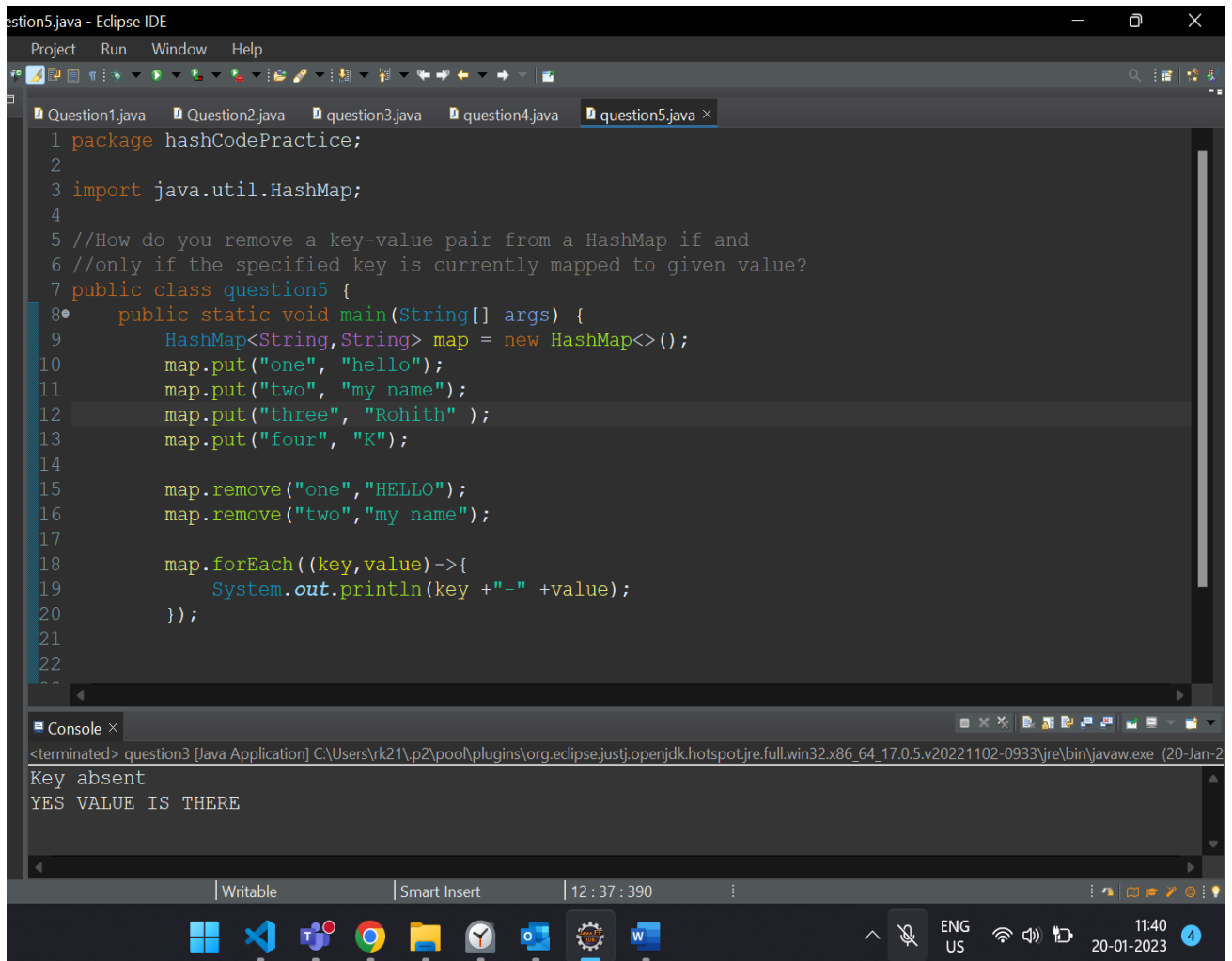
Console

```
Key absent
YES VALUE IS THERE
```

5) How do you remove a key-value pair from a HashMap if and only if the specified key is currently mapped to given value?

Project   Run   Window   Help

Question1.java   Question2.java   question3.java   question4.java   question5.java ×

```java
1 package hashCodePractice;
2
3 import java.util.HashMap;
4
5 //How do you remove a key-value pair from a HashMap if and
6 //only if the specified key is currently mapped to given value?
7 public class question5 {
8    public static void main(String[] args) {
9        HashMap<String,String> map = new HashMap<>();
10        map.put("one", "hello");
11        map.put("two", "my name");
12        map.put("three", "Rohith" );
13        map.put("four", "K");
14
15        map.remove("one","HELLO");
16        map.remove("two","my name");
17
18        map.forEach((key,value)->{
19            System.out.println(key +"-" +value);
20        });
21
22
```

Console ×

<terminated> question3 [Java Application] C:\Users\rk21\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.5.v20221102-0933\jre\bin\javaw.exe (20-Jan-2

```
Key absent
YES VALUE IS THERE
```

Writable   Smart Insert   12:37:390

ENG
US

11:40
20-01-2023