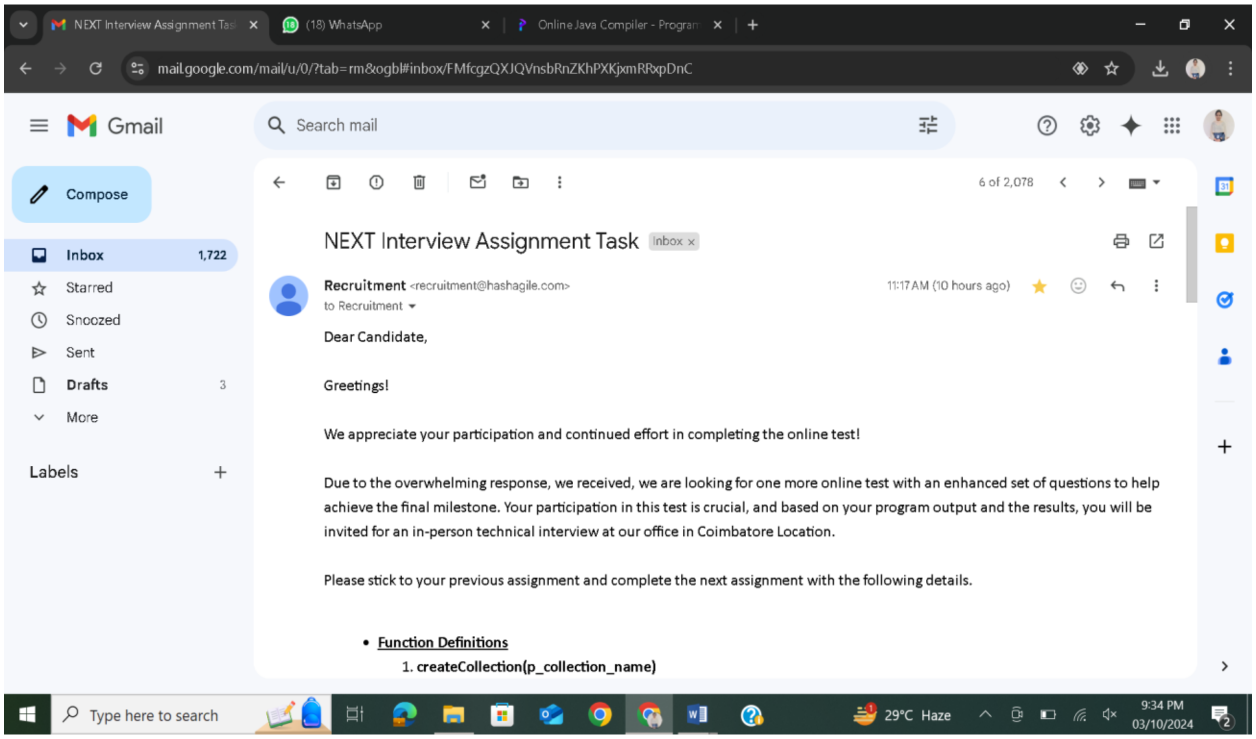


NEXT Interview Assignment Task

Recruitment <recruitment@hashagile.com>
to Recruitment
11:17 AM (10 hours ago)

Dear Candidate,

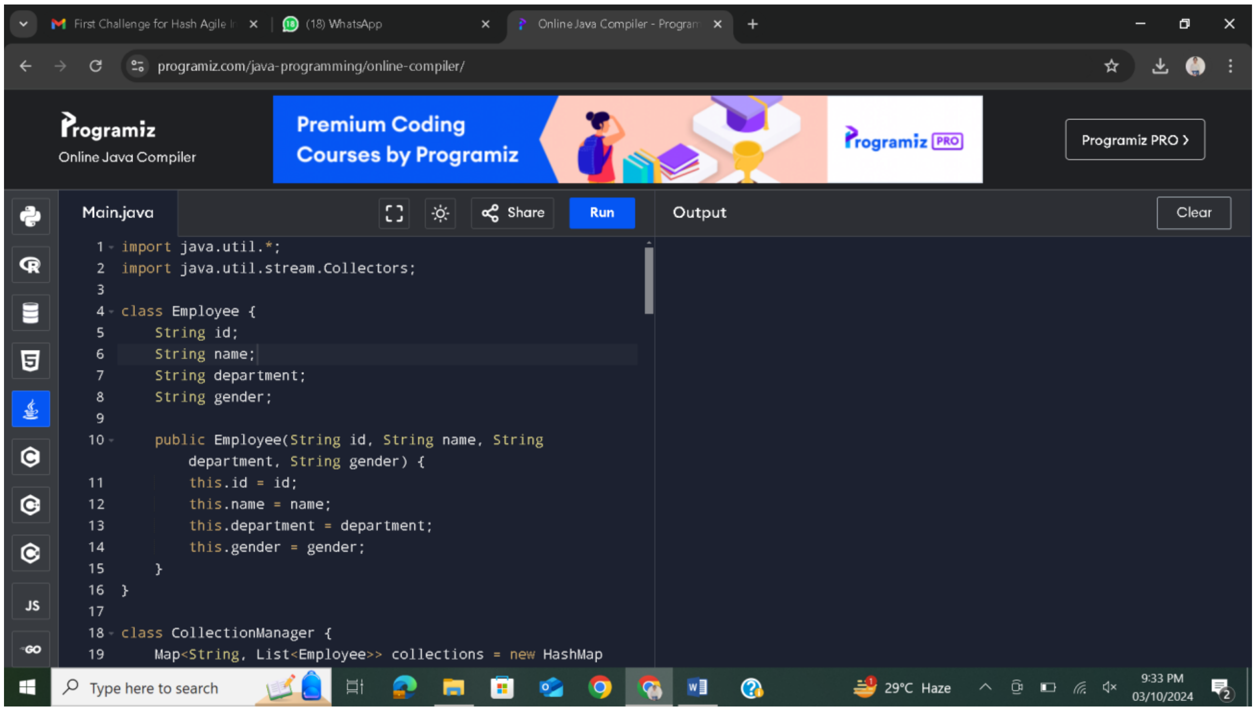
Greetings!

We appreciate your participation and continued effort in completing the online test!

Due to the overwhelming response, we received, we are looking for one more online test with an enhanced set of questions to help achieve the final milestone. Your participation in this test is crucial, and based on your program output and the results, you will be invited for an in-person technical interview at our office in Coimbatore Location.

Please stick to your previous assignment and complete the next assignment with the following details.

- **Function Definitions**
  1. **createCollection(p_collection_name)**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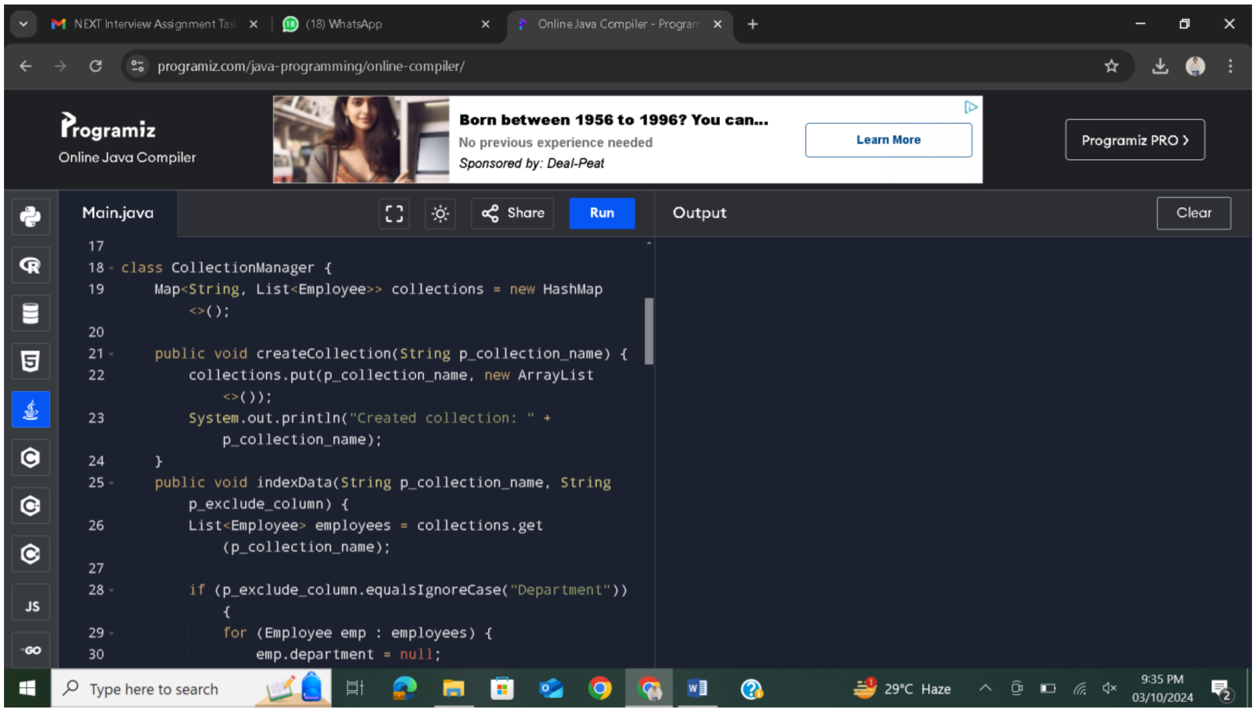
```java
import java.util.*;
import java.util.stream.Collectors;

class Employee {
    String id;
    String name;
    String department;
    String gender;

    public Employee(String id, String name, String
        department, String gender) {
        this.id = id;
        this.name = name;
        this.department = department;
        this.gender = gender;
    }
}

class CollectionManager {
    Map<String, List<Employee>> collections = new HashMap
```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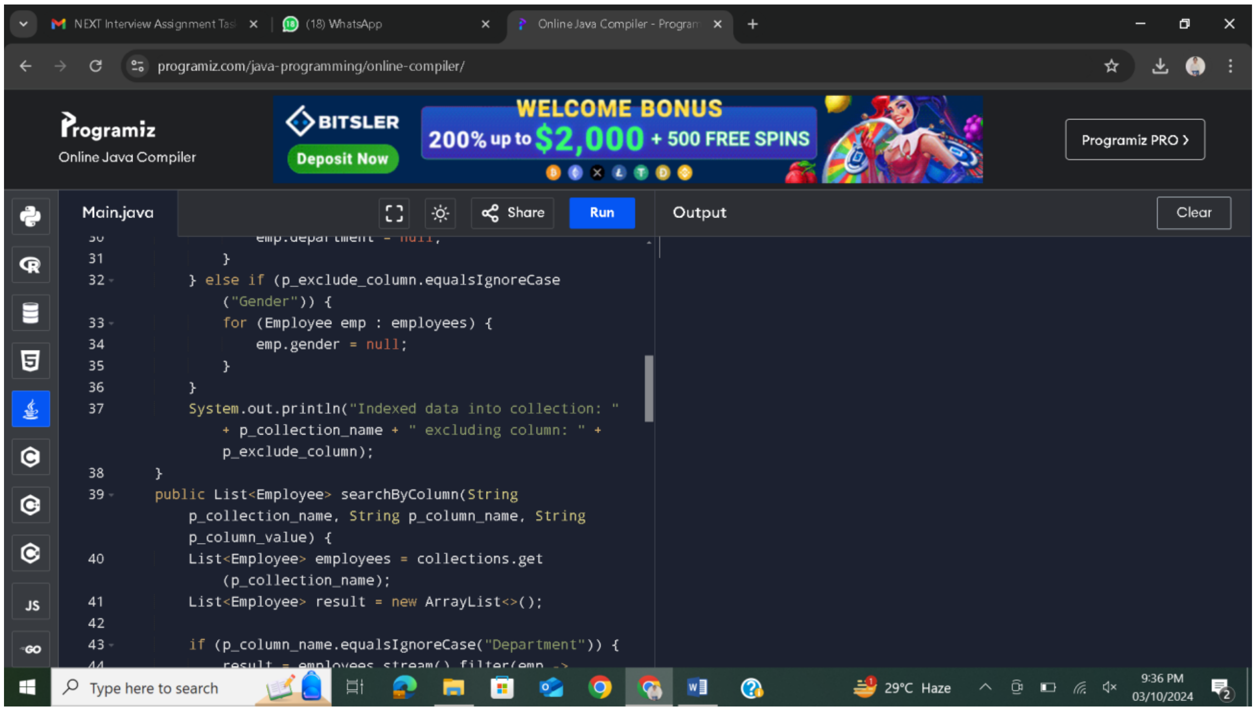
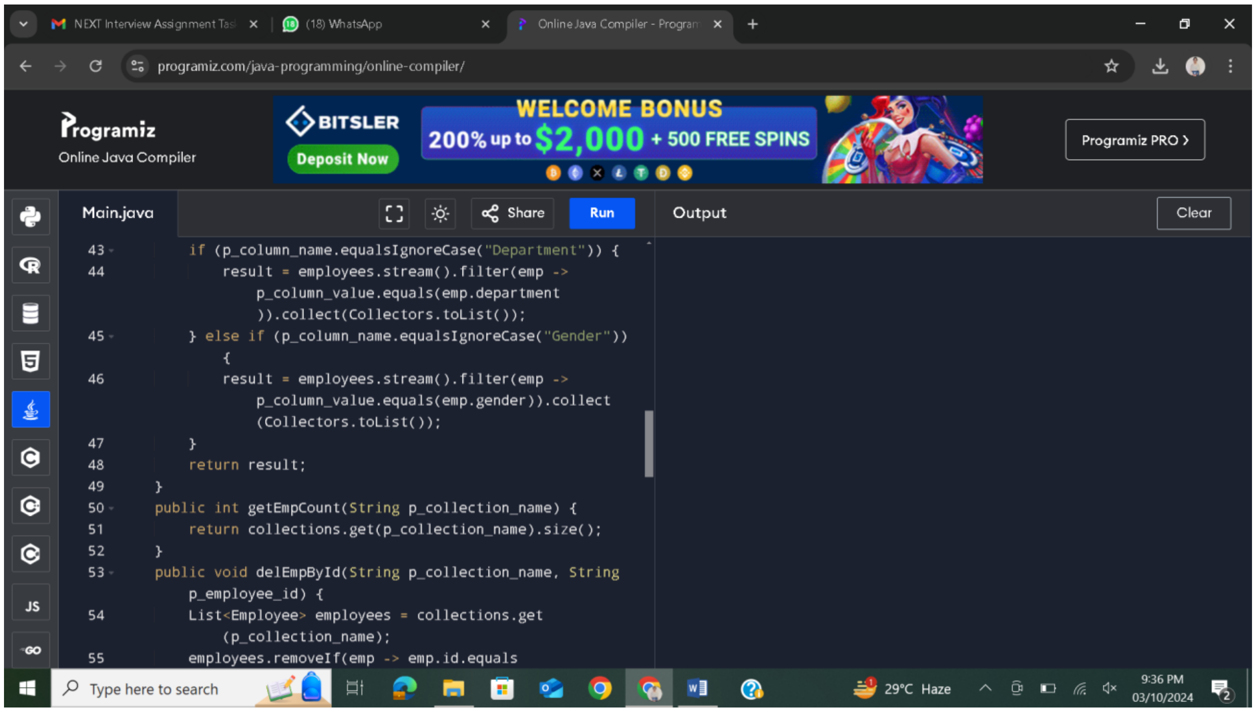
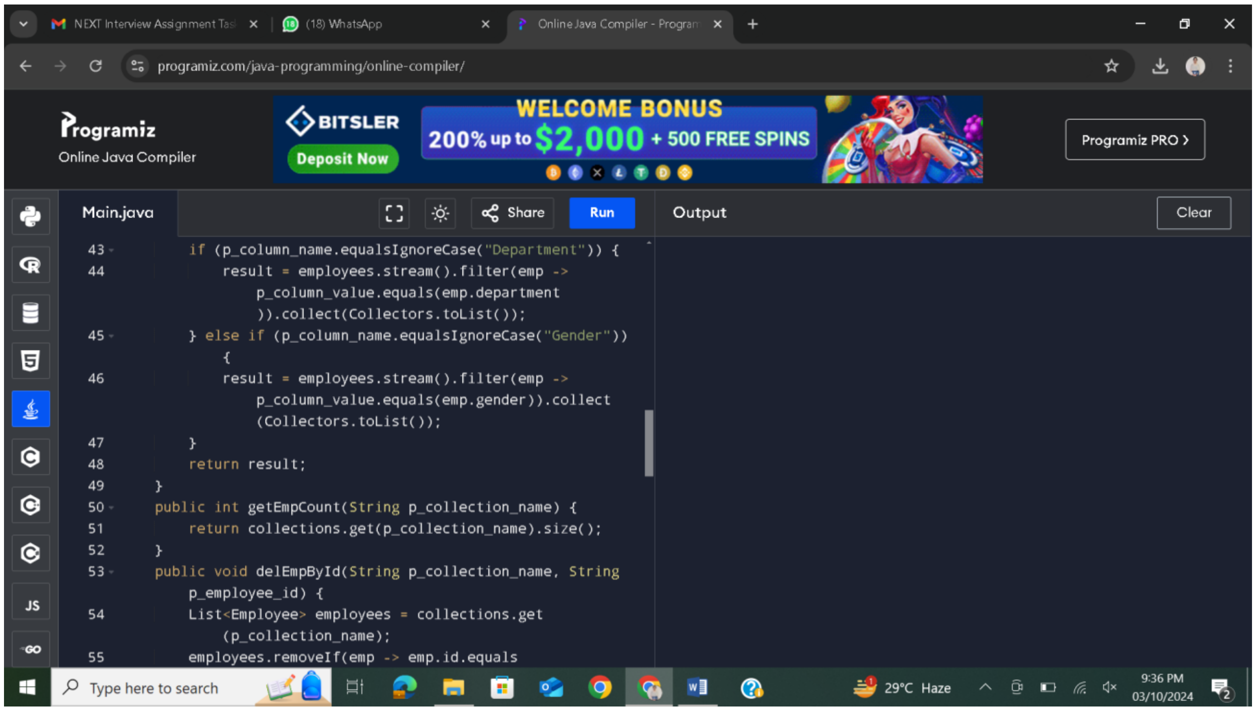
```java

class CollectionManager {
    Map<String, List<Employee>> collections = new HashMap
        <>();

    public void createCollection(String p_collection_name) {
        collections.put(p_collection_name, new ArrayList
            <>());
        System.out.println("Created collection: " +
            p_collection_name);
    }
    public void indexData(String p_collection_name, String
        p_exclude_column) {
        List<Employee> employees = collections.get
            (p_collection_name);

        if (p_exclude_column.equalsIgnoreCase("Department"))
            {
            for (Employee emp : employees) {
                emp.department = null;
```



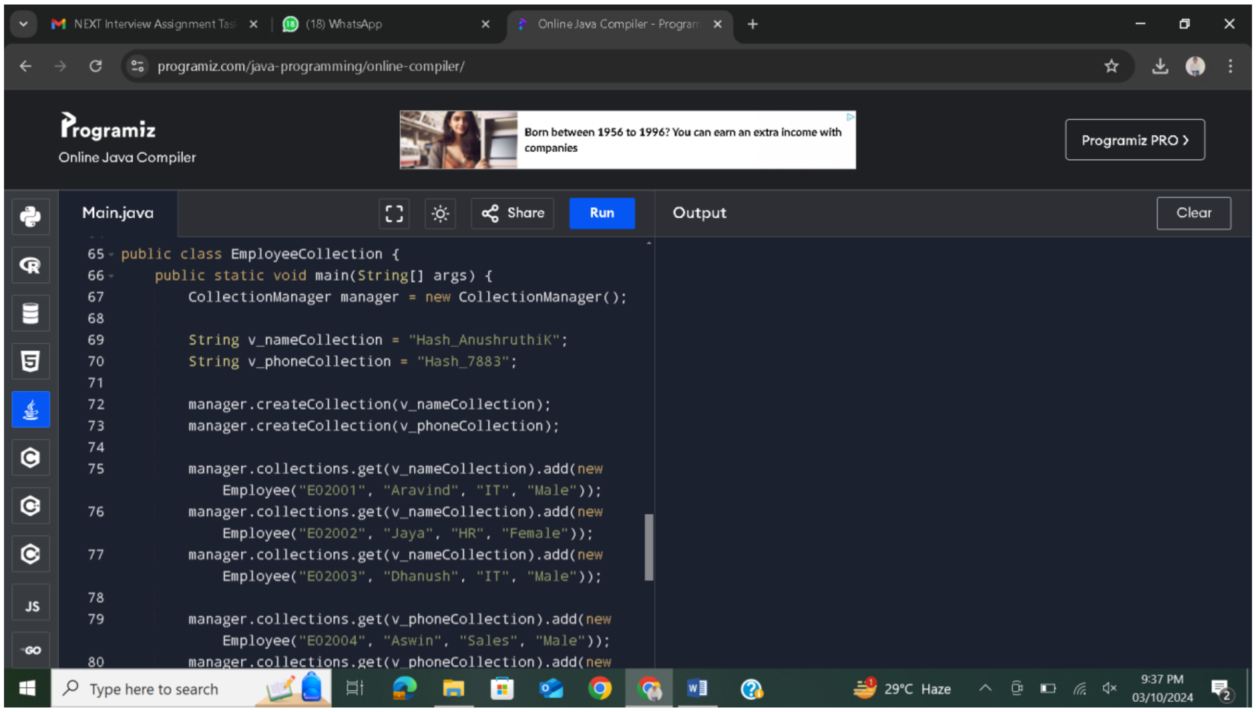
```
            emp.department = null;
        }
    } else if (p_exclude_column.equalsIgnoreCase
        ("Gender")) {
        for (Employee emp : employees) {
            emp.gender = null;
        }
    }
    System.out.println("Indexed data into collection: "
        + p_collection_name + " excluding column: " +
        p_exclude_column);
}
public List<Employee> searchByColumn(String
    p_collection_name, String p_column_name, String
    p_column_value) {
    List<Employee> employees = collections.get
        (p_collection_name);
    List<Employee> result = new ArrayList<>();

    if (p_column_name.equalsIgnoreCase("Department")) {
        result = employees.stream().filter(emp ->
```



```
    if (p_column_name.equalsIgnoreCase("Department")) {
        result = employees.stream().filter(emp ->
            p_column_value.equals(emp.department
            )).collect(Collectors.toList());
    } else if (p_column_name.equalsIgnoreCase("Gender"))
        {
        result = employees.stream().filter(emp ->
            p_column_value.equals(emp.gender)).collect
            (Collectors.toList());
    }
    return result;
}
public int getEmpCount(String p_collection_name) {
    return collections.get(p_collection_name).size();
}
public void delEmpById(String p_collection_name, String
    p_employee_id) {
    List<Employee> employees = collections.get
        (p_collection_name);
    employees.removeIf(emp -> emp.id.equals
```



```
        if (p_column_name.equalsIgnoreCase("Department")) {
            result = employees.stream().filter(emp ->
                p_column_value.equals(emp.department
                )).collect(Collectors.toList());
        } else if (p_column_name.equalsIgnoreCase("Gender"))
            {
            result = employees.stream().filter(emp ->
                p_column_value.equals(emp.gender)).collect
                (Collectors.toList());
        }
        return result;
    }
    public int getEmpCount(String p_collection_name) {
        return collections.get(p_collection_name).size();
    }
    public void delEmpById(String p_collection_name, String
        p_employee_id) {
        List<Employee> employees = collections.get
            (p_collection_name);
        employees.removeIf(emp -> emp.id.equals
```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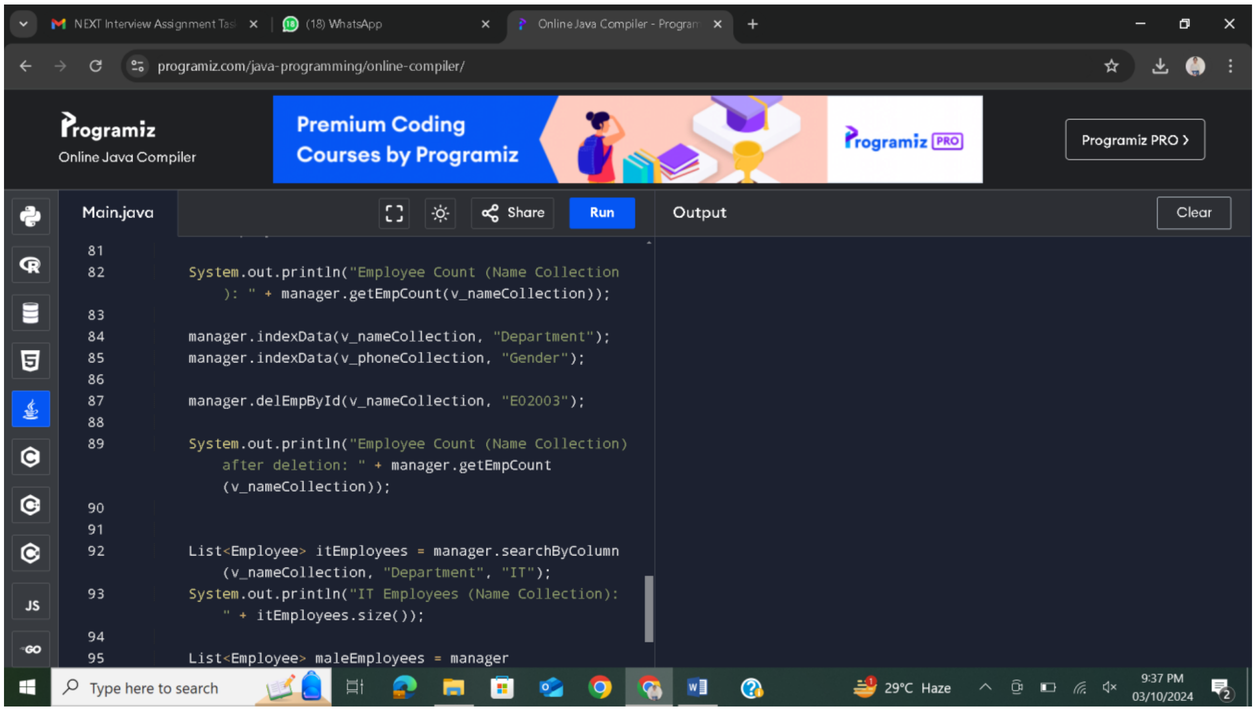
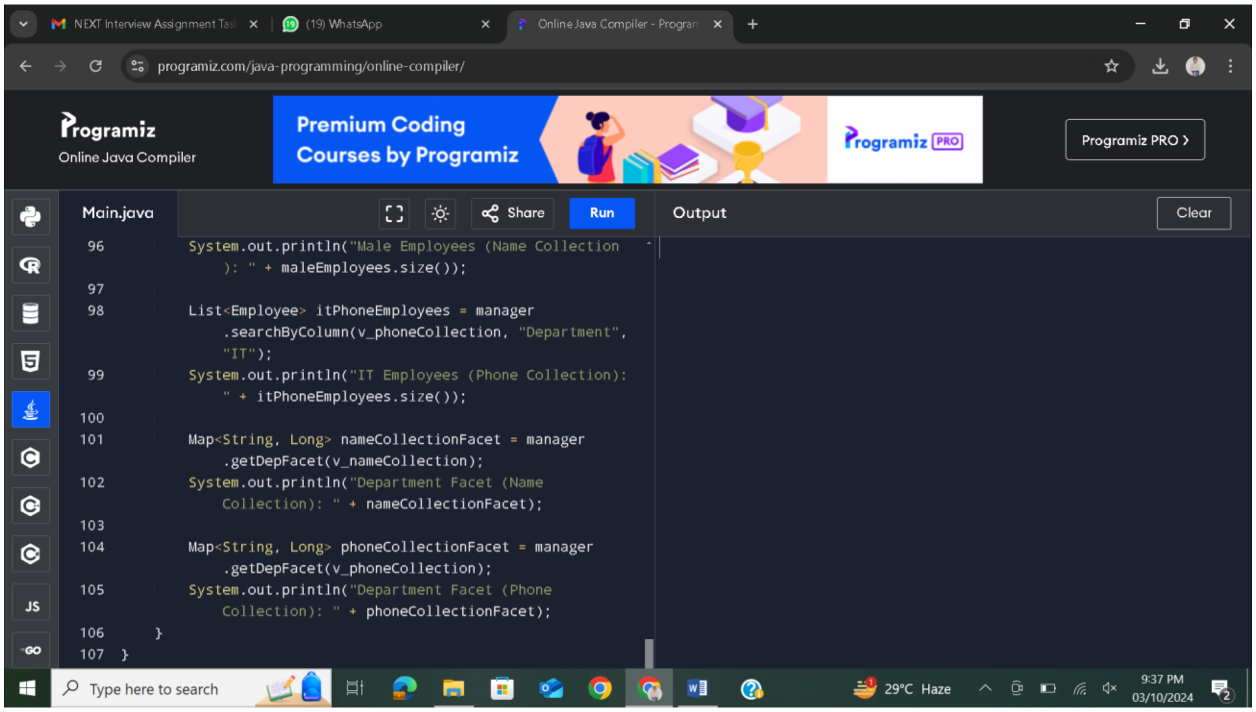
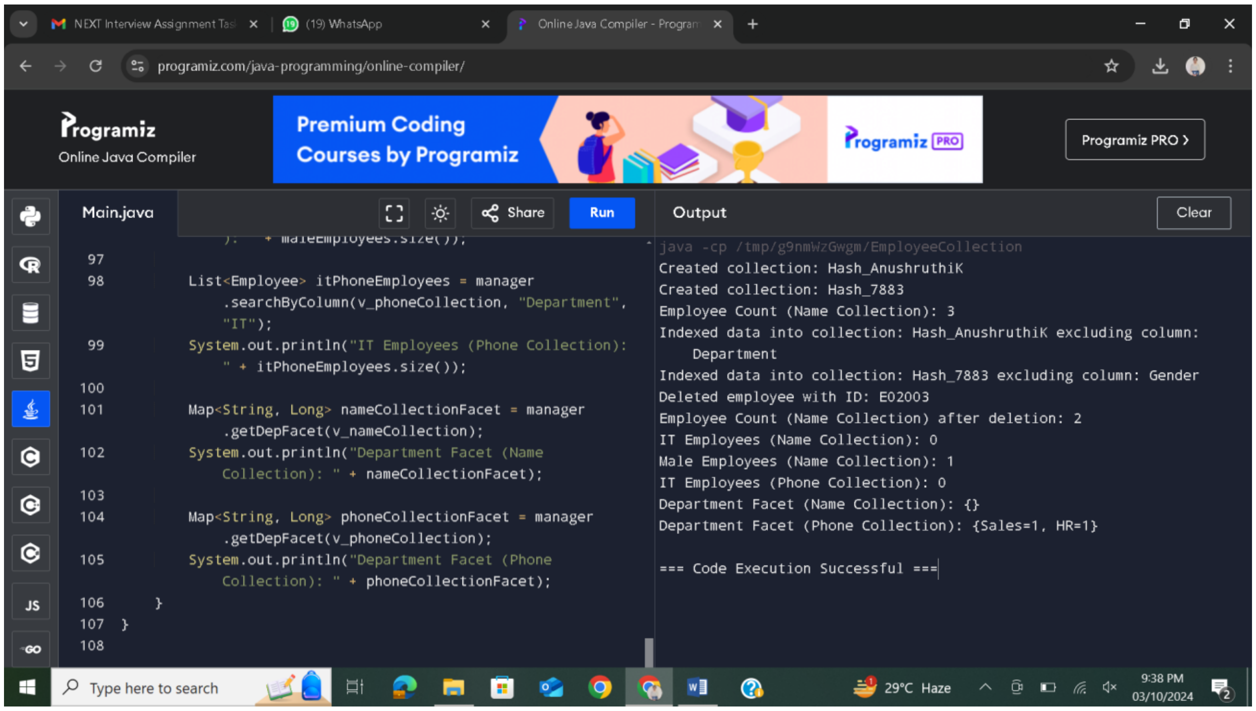
```
public class EmployeeCollection {
    public static void main(String[] args) {
        CollectionManager manager = new CollectionManager();

        String v_nameCollection = "Hash_AnushruthiK";
        String v_phoneCollection = "Hash_7883";

        manager.createCollection(v_nameCollection);
        manager.createCollection(v_phoneCollection);

        manager.collections.get(v_nameCollection).add(new
            Employee("E02001", "Aravind", "IT", "Male"));
        manager.collections.get(v_nameCollection).add(new
            Employee("E02002", "Jaya", "HR", "Female"));
        manager.collections.get(v_nameCollection).add(new
            Employee("E02003", "Dhanush", "IT", "Male"));

        manager.collections.get(v_phoneCollection).add(new
            Employee("E02004", "Aswin", "Sales", "Male"));
        manager.collections.get(v_phoneCollection).add(new
```



```java
        System.out.println("Employee Count (Name Collection): " + manager.getEmpCount(v_nameCollection));

        manager.indexData(v_nameCollection, "Department");
        manager.indexData(v_phoneCollection, "Gender");

        manager.delEmpById(v_nameCollection, "E02003");

        System.out.println("Employee Count (Name Collection) after deletion: " + manager.getEmpCount(v_nameCollection));


        List<Employee> itEmployees = manager.searchByColumn(v_nameCollection, "Department", "IT");
        System.out.println("IT Employees (Name Collection): " + itEmployees.size());

        List<Employee> maleEmployees = manager
```



```java
        System.out.println("Male Employees (Name Collection): " + maleEmployees.size());

        List<Employee> itPhoneEmployees = manager.searchByColumn(v_phoneCollection, "Department", "IT");
        System.out.println("IT Employees (Phone Collection): " + itPhoneEmployees.size());

        Map<String, Long> nameCollectionFacet = manager.getDepFacet(v_nameCollection);
        System.out.println("Department Facet (Name Collection): " + nameCollectionFacet);

        Map<String, Long> phoneCollectionFacet = manager.getDepFacet(v_phoneCollection);
        System.out.println("Department Facet (Phone Collection): " + phoneCollectionFacet);
    }
}
```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```java
        List<Employee> itPhoneEmployees = manager
            .searchByColumn(v_phoneCollection, "Department",
            "IT");
        System.out.println("IT Employees (Phone Collection):
            " + itPhoneEmployees.size());

        Map<String, Long> nameCollectionFacet = manager
            .getDepFacet(v_nameCollection);
        System.out.println("Department Facet (Name
            Collection): " + nameCollectionFacet);

        Map<String, Long> phoneCollectionFacet = manager
            .getDepFacet(v_phoneCollection);
        System.out.println("Department Facet (Phone
            Collection): " + phoneCollectionFacet);
    }
}
```

```
java -cp /tmp/g9nmWzGwgm/EmployeeCollection
Created collection: Hash_AnushruthiK
Created collection: Hash_7883
Employee Count (Name Collection): 3
Indexed data into collection: Hash_AnushruthiK excluding column:
    Department
Indexed data into collection: Hash_7883 excluding column: Gender
Deleted employee with ID: E02003
Employee Count (Name Collection) after deletion: 2
IT Employees (Name Collection): 0
Male Employees (Name Collection): 1
IT Employees (Phone Collection): 0
Department Facet (Name Collection): {}
Department Facet (Phone Collection): {Sales=1, HR=1}

=== Code Execution Successful ===
```