```
import java.util.*;
import java.util.stream.Collectors;

public class ElectricityBoardMain {
   private Map<String, String> electricityMap;

   public ElectricityBoardMain() {
      this.electricityMap = new HashMap<>();
   }

   public Map<String, String> getElectricityMap() {
      return electricityMap;
   }

   public void setElectricityMap(Map<String, String> electricityMap) {
      this.electricityMap = electricityMap;
   }

   public int findCountOfConnectionsBasedOnTheConnectionType(String connectionType) {
      if (connectionType == null || connectionType.isEmpty()) {
         return -1;
      }

      int count = 0;
      for (String type : electricityMap.values()) {
         if (type.equalsIgnoreCase(connectionType)) {
            count++;
         }
      }

      return count > 0 ? count : -1;
```

```
}

public List<String> findConnectionIdsBasedOnTheConnectionType(String connectionType) {
    if (connectionType == null || connectionType.isEmpty()) {
        return new ArrayList<>();
    }

    return electricityMap.entrySet().stream()
            .filter(entry -> entry.getValue().equalsIgnoreCase(connectionType))
            .map(Map.Entry::getKey)
            .collect(Collectors.toList());
}

public static void main(String[] args) {
    ElectricityBoardMain electricityBoard = new ElectricityBoardMain();
    Scanner scanner = new Scanner(System.in);

    System.out.println("Enter the number of connection records to be added");
    int numRecords = Integer.parseInt(scanner.nextLine());

    System.out.println("Enter the connection records (ConnectionId:Connectiontype)");
    Map<String, String> records = new HashMap<>();
    for (int i = 0; i < numRecords; i++) {
        String[] parts = scanner.nextLine().split(":");
        if (parts.length == 2) {
            records.put(parts[0], parts[1]);
        }
    }
    electricityBoard.setElectricityMap(records);

    System.out.println("Enter the Connection type to be searched");
```

```
        String searchType = scanner.nextLine();
        int count = electricityBoard.findCountOfConnectionsBasedOnTheConnectionType(searchType);
        if (count == -1) {
            System.out.println("No Connection Ids were found for " + searchType);
        } else {
            System.out.println("The count of connection Ids based on " + searchType + " are " + count);
        }

        System.out.println("Enter the Connection type to identify the ConnectionIds");
        String filterType = scanner.nextLine();
        List<String> connectionIds =
electricityBoard.findConnectionIdsBasedOnTheConnectionType(filterType);
        if (connectionIds.isEmpty()) {
            System.out.println("No Connection Ids were found for " + filterType);
        } else {
            System.out.println("Connection Ids based on the " + filterType + " are");
            connectionIds.forEach(System.out::println);
        }
    }
}
```