Electricity Board(---RETIRED---)

Grade settings: Maximum grade: 100
Disable external file upload, paste and drop external content: Yes
Based on: Electricity Board(---RETIRED---)
Run: Yes **Evaluate**: Yes
Automatic grade: Yes

The Tamil Nadu government wants to know the Electricity Board details. They wanted to get the Connection Ids based on the Connection type. As a software developer, you create a Java program in accordance with the specification.

Component Specification: ElectricityBoardMain Class

Type (Class)	Attributes	Methods
ElectricityBoardMain	private Map<String, String> **electricityMap**	Getter and setter methods for the attribute are included in the code skeleton.

Note: *Here the electricityMap, holds the Key as connectionId and Value as connectionType.*

Requirement 1: Find the number of connections based on the given connectionType.

Type (Class)	Methods	Responsibilities
ElectricityBoardMain	public int **findCountOfConnectionsBasedOnTheConnectionType**(String connectionType)	This method accepts connectionType as an argument. If the connectionType matches the connectionType present in the Map, it must count the connections and return the same. Else return -1. ***Condition: connectionType is a case-insensitive***

Requirement 2: Filter the connectionIds based on the connectionType.

Type (Class)	Methods	Responsibilities
ElectricityBoardMain	public List<String> **findConnectionIdsBasedOnTheConnectionType**(String connectionType)	This method filters the connectionId based on the connectionType being passed as the parameter and returns a list of connectionId. ***Condition: connectionType is a case-insensitive***

You are provided with the main method as code template and it is excluded from evaluation.

Note:

- In the Sample Input / Output provided, the highlighted text in bold corresponds to the input given by the user, and the rest of the text represents the output.
- Ensure to follow the object-oriented specifications provided in the question description.

- Ensure to provide the names for the classes, attributes, and methods as specified in the question description.
- Adhere to the code template, if provided.

Sample Input/Output 1:

Enter the number of connection records to be added

4

Enter the connection records (Connection Id : Connection type)

ASHG2376:single

GFHJ9768:Single

HGHH9776:double

SJHY2838:Double

Enter the Connection type to be searched

SINGLE

The count of connection Ids based on SINGLE are 2

Enter the Connection type to identify the Connection Ids

DOUBLE

Connection Ids based on the DOUBLE are

GFHJ9768

SJHY2838

Sample Input/Output 2:

Enter the number of connection records to be added

2

Enter the connection records (Connection Id : Connection type)

ASHH0919:Single

HAGS1891:Three

Enter the Connection type to be searched

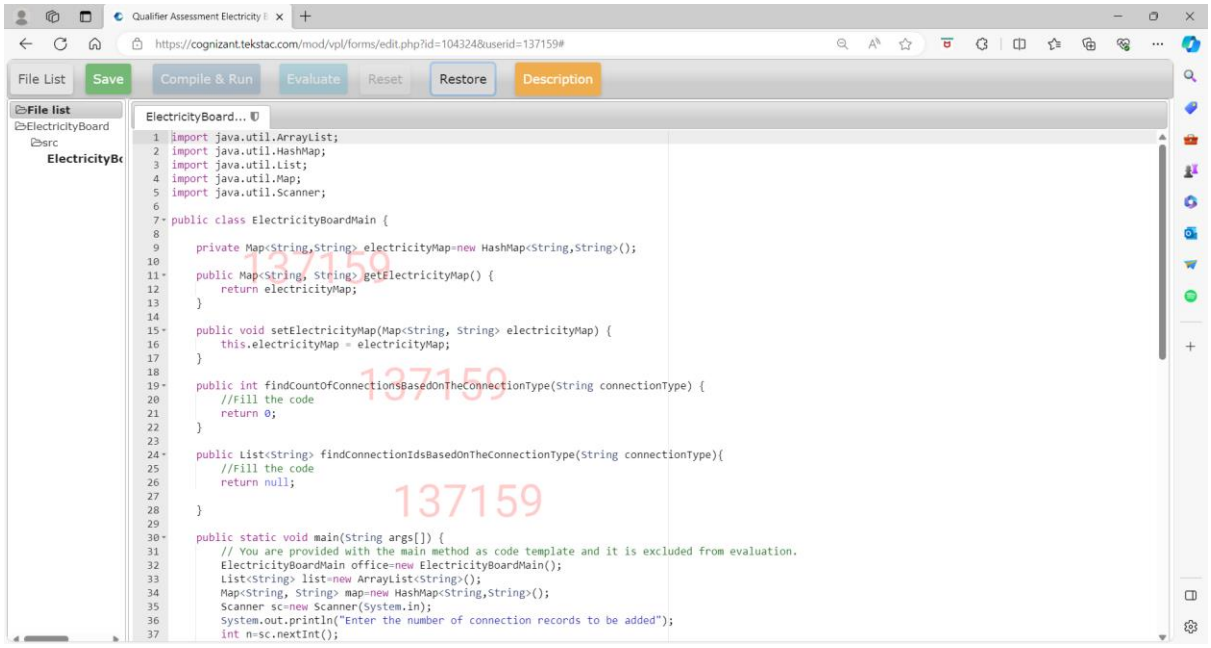
double

No Connection Ids were found for double

Enter the Connection type to identify the Connection Ids

standard

No Connection Ids were found for the standard


Qualifier Assessment Electricity
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File List
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Compile & Run
Evaluate
Reset
Restore
Description
File list
ElectricityBoard
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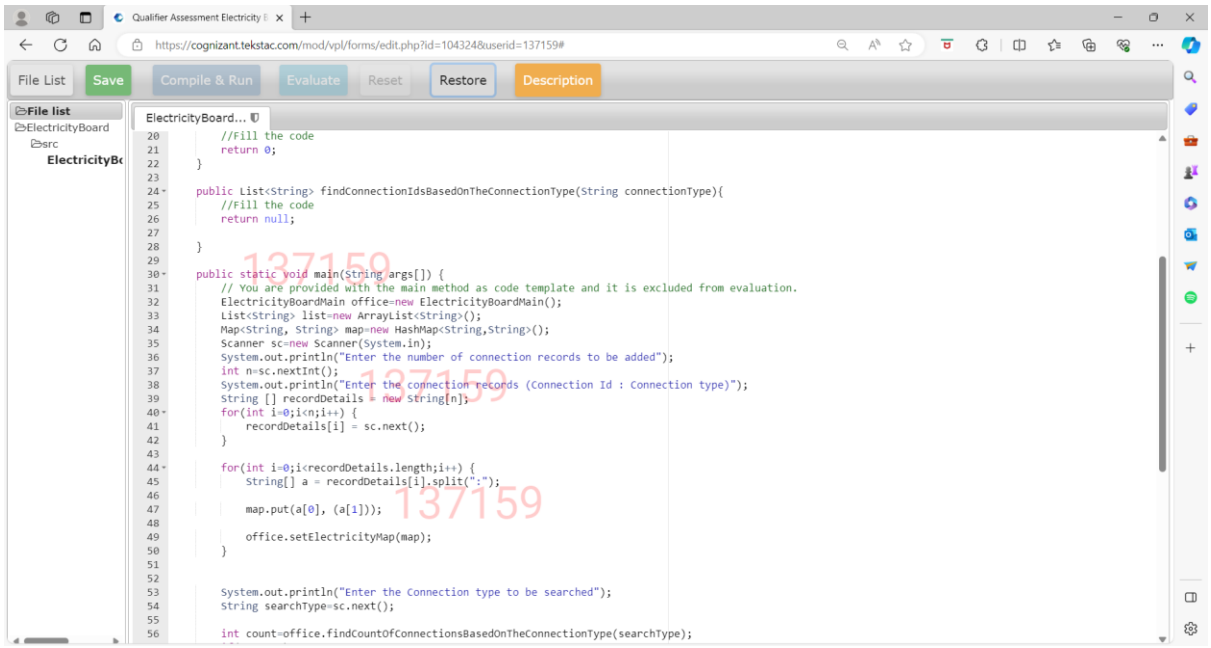
import java.util.ArrayList;
import java.util.HashMap;
import java.util.List;
import java.util.Map;
import java.util.Scanner;
public class ElectricityBoardMain {
private Map<String,String> electricityMap=new HashMap<String,String>();
public Map<String, String> getElectricityMap() {
return electricityMap;
}
public void setElectricityMap(Map<String, String> electricityMap) {
this.electricityMap = electricityMap;
}
public int findCountOfConnectionsBasedOnTheConnectionType(String connectionType) {
//Fill the code
return 0;
}
public List<String> findConnectionIdsBasedOnTheConnectionType(String connectionType){
//Fill the code
return null;
}
public static void main(String args[]) {
// You are provided with the main method as code template and it is excluded from evaluation.
ElectricityBoardMain office=new ElectricityBoardMain();
List<String> list=new ArrayList<String>();
Map<String, String> map=new HashMap<String,String>();
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number of connection records to be added");
int n=sc.nextInt();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return 0;
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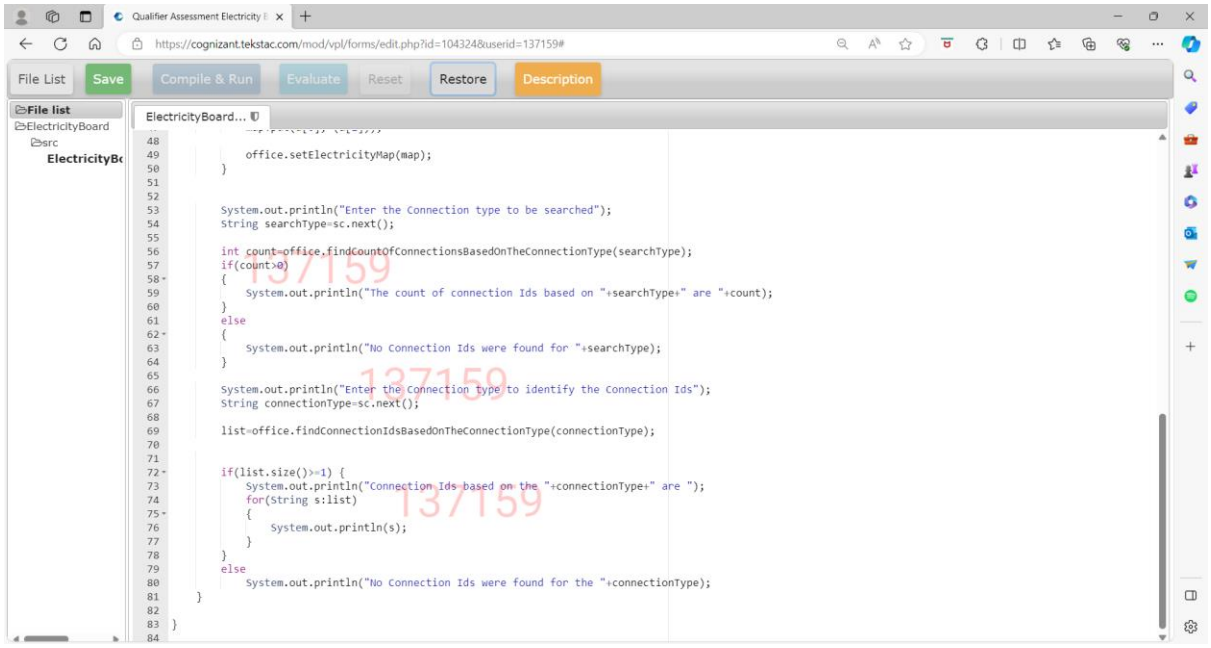
public static void main(String args[]) {
// You are provided with the main method as code template and it is excluded from evaluation.
ElectricityBoardMain office=new ElectricityBoardMain();
List<String> list=new ArrayList<String>();
Map<String, String> map=new HashMap<String,String>();
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number of connection records to be added");
int n=sc.nextInt();
System.out.println("Enter the connection records (Connection Id : Connection type)");
String [] recordDetails = new String[n];
for(int i=0;i<n;i++) {
recordDetails[i] = sc.next();
}
for(int i=0;i<recordDetails.length;i++) {
String[] a = recordDetails[i].split(":");
map.put(a[0], (a[1]));
office.setElectricityMap(map);
}
System.out.println("Enter the Connection type to be searched");
String searchType=sc.next();
int count=office.findCountOfConnectionsBasedOnTheConnectionType(searchType);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ElectricityBo
ElectricityBoard...
office.setElectricityMap(map);
System.out.println("Enter the Connection type to be searched");
String searchType=sc.next();
int count=office.findCountOfConnectionsBasedOnTheConnectionType(searchType);
if(count>0)
System.out.println("The count of connection Ids based on "+searchType+" are "+count);
else
System.out.println("No Connection Ids were found for "+searchType);
System.out.println("Enter the Connection type to identify the Connection Ids");
String connectionType=sc.next();
list=office.findConnectionIdsBasedOnTheConnectionType(connectionType);
if(list.size()>=1) {
System.out.println("Connection Ids based on the "+connectionType+" are ");
for(String s:list)
System.out.println(s);
else
System.out.println("No Connection Ids were found for the "+connectionType);
}
}