LPG Connection Details(---RETIRED---)

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

The Tamil Nadu government desired to provide discounts to LPG consumers based on the type of connection. They seek assistance from a software developer with their process. You are the software developer, and you are developing a Java program in accordance with the specifications.

Component Specification: Consumer

Type (Class)	**Attributes**	**Methods**
Consumer	String consumerId String consumerName String aadharNumber String connectionType double price	Necessary getters, setters, and a five-argument constructor is provided as a part of the code skeleton.

Functional Requirement 1: Extract the details of the Consumer and create an object for Consumer class.

Type (Class)	**Methods**	**Responsibilities**
UserInterface	public static Consumer **extractDetails** (String consumerDetails)	This method accepts consumerDetails separated by the colon as an argument and extracts the properties of the Consumer from the argument. Set these values to the Consumer object and return this object.

Functional Requirement 2: Calculate the amount to be paid by the consumer for the LPG Connection.

Type (Class)	Methods	Responsibilities
Consumer	public double **calculateAmountToBePaid**()	This method is used to calculate the amount to be paid by the consumer. If the connectionType is **Indane**, the discount percentage is **7%**. If the connectionType is **Mayur**, the discount percentage is **4%**. If the connectionType is **HP**, the discount percentage is **6%**. If the connectionType is **Bharat**, the discount percentage is **11%**. If the connectionType is **Super**, the discount percentage is **13%**. ***Condition****:* • ***connectionType*** *is case-insensitive.* • *If the* ***connectionType*** *doesn't match any of the above-mentioned connectionType, the method should return -1.* • *If the* ***price*** *is less than or equal to zero, the method should return -1.*

Formula to calculate the amount to be paid:

Amount to be paid = price - (price* discount % (based on the connectionType) /100)

For Example:

If connectionType = HP and price =1200.

Amount to be paid = 1200 - (1200 * 6 / 100) = 1128.

The main method in the UserInterface class is excluded from the evaluation. You are free to write your own code in the main method to invoke the business methods to check its correctness.

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

Sample Input / Output 1:

Enter Consumer Details

CON521:Jenny:2344-2878-1982:Super:1200

Consumer Id : CON521

Consumer Name : Jenny

Aadhar Number : 2344-2878-1982

Connection Type : Super

Price : 1200.0

Amount to be paid by the Consumer : 1044.00

Sample Input / Output 2:

Enter Consumer Details

CON1726:Amy:2762-1928-3922:Surya:1450

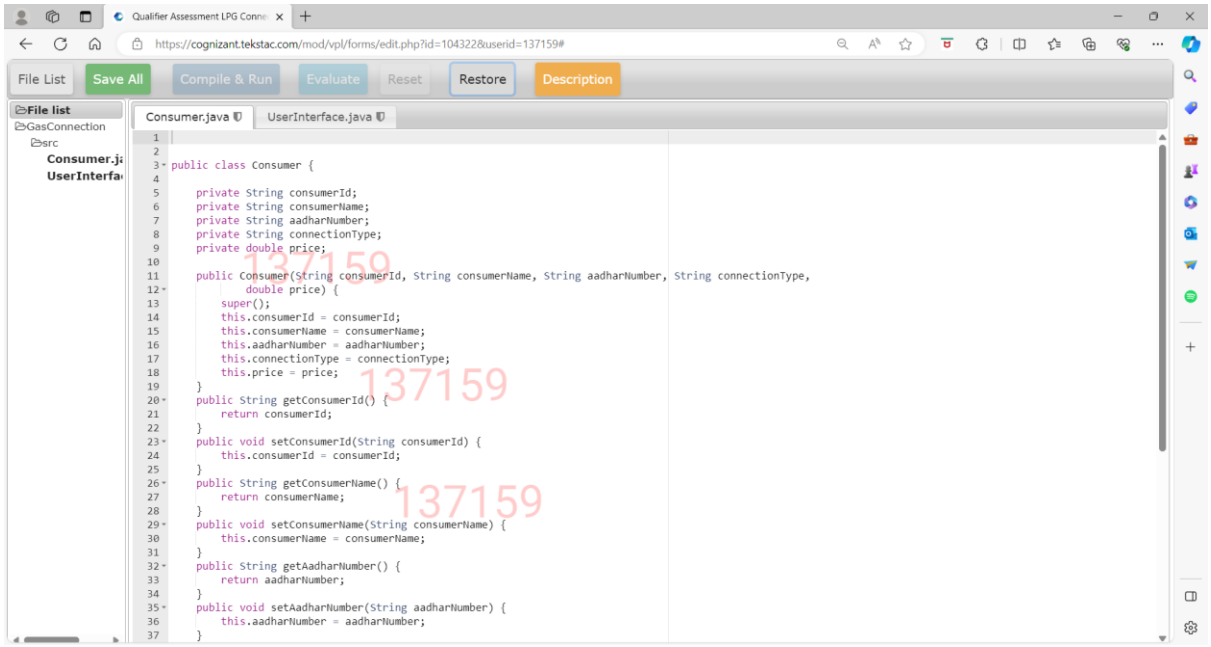
Invalid Consumer Details

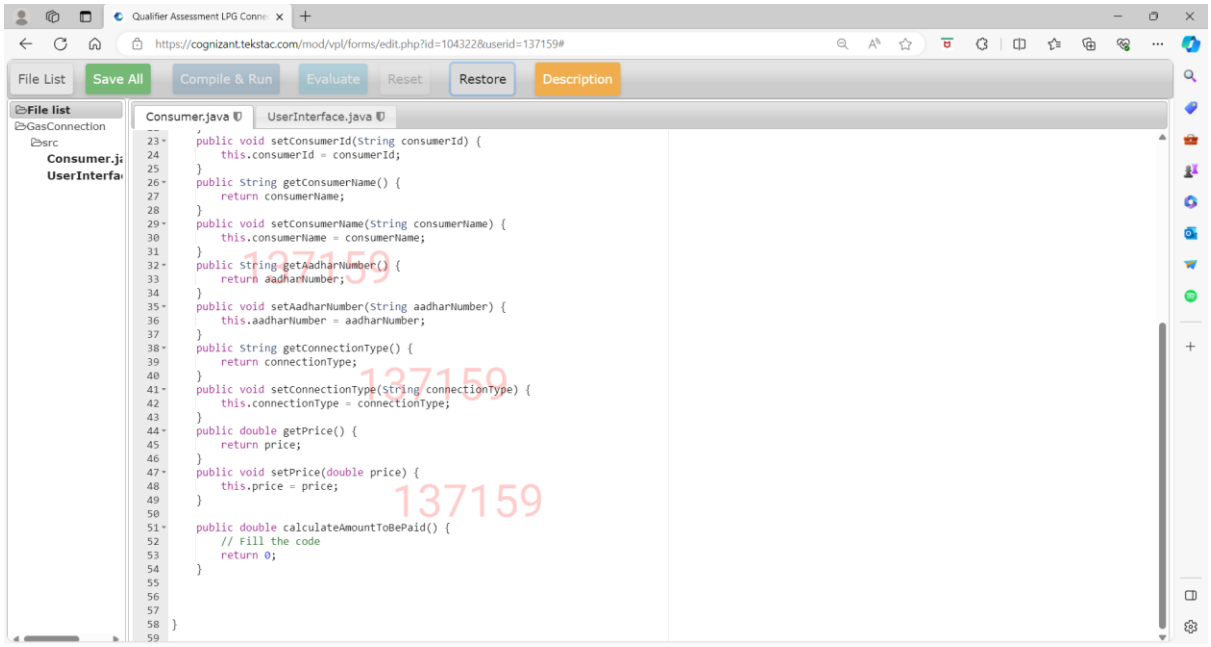
Sample Input / Output 3:

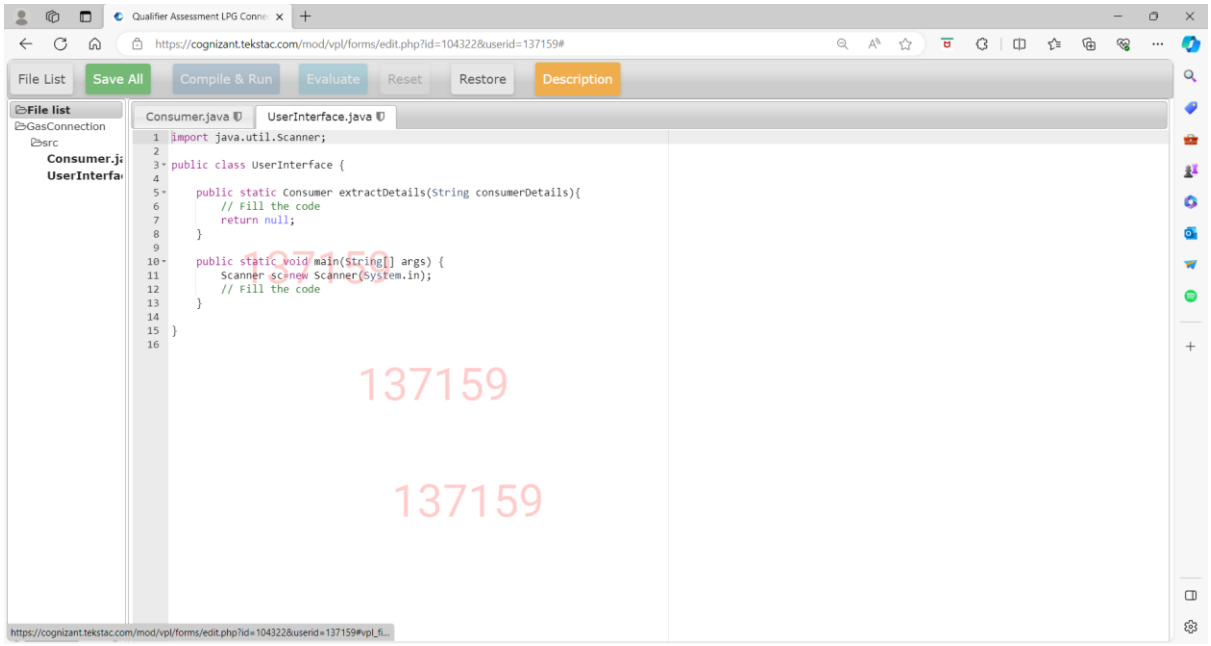
Enter Consumer Details

CON1726:Amy:2762-1928-3922:Mayur:-800

Invalid Consumer Details






Qualifier Assessment LPG Conne
https://cognizant.tekstac.com/mod/vpl/forms/edit.php?id=104322&userid=137159#
File List
Save All
Compile & Run
Evaluate
Reset
Restore
Description
File list
GasConnection
src
Consumer.ja
UserInterfa
Consumer.java
UserInterface.java
import java.util.Scanner;
public class UserInterface {
public static Consumer extractDetails(String consumerDetails){
// Fill the code
return null;
}
public static void main(String[] args) {
Scanner sc=new Scanner(System.in);
// Fill the code
}
}
137159
137159
https://cognizant.tekstac.com/mod/vpl/forms/edit.php?id=104322&userid=137159#vpl_fi...