

Gold Rate Calculation - Collections

A jewellery shop needs an application to calculate the gold rate for the specific grams chosen by their customers. Create a spring core application using Maven to perform this task.

GoldRateInfo class with the below **private attribute** is provided as part of the code skeleton.

rateInfo	Map<Integer,Double>
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Getter and setter methods for the above attribute are provided as part of the code skeleton. The **GoldRateInfo** class should be registered as a **bean** with appropriate annotations.

The values need to be injected into the **rateInfo** via **setter-based injection** in the **GoldRateInfo** class from the **goldRateDetails.properties** file.

A method **public double calculateGoldRate(int goldCarat, double grams)** will be provided in the **GoldRateInfo** class as a part of the code skeleton. Depending on the user input, fetch the appropriate gold rate from the **rateInfo** map, calculate the gold rate, and return the result back to the user.

The map values are given in the **goldRateDetails.properties** file for the gold rate per gram for various carats are as follows:

Carat (Integer)	Rate per gram (Double)
18	3800.0
22	4300.0
24	4500.0

Driver class with the below methods is provided as part of the code skeleton.

- **public static GoldRateInfo loadGoldRateDetails()** --> This method should fetch the **GoldRateInfo** object and return the same.
- **public static void main(String[] args)** --> Inside the main method, invoke the **loadGoldRateDetails** method and obtain the object.

Design Constraints:

- **GoldRateInfo** and **Driver** class should be present in **com.spring.app** package

- Maintain the same **className/Attribute Name/PackageName** as specified in the problem statement. Do not create any new packages.
- All the configuration should be done using the annotations in the created Maven project.