Big Sky Wood working, a well-known carpentry firm specializing in custom wood furniture, is facing challenges in managing their orders efficiently. With various types of wood coming in for different projects, they need a system to store order details, to track and retrieve order Id's based on the wood type. To simplify this process, the firm seeks your help as a software developer to build a reliable program.

**Component Specification: Wood Class**

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| --- | --- | --- |
| **Type (Class)** | **Attributes** | **Methods** |
| **Wood** | private Map<String, String> **woodMap** | Getter and setter methods for the attribute are included in the code skeleton.  ***Note****: Here the woodMap, holds the Key as orderId and Value as woodType.* |

**Component Specification: Wood Class**

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| --- | --- | --- | --- |
| **Requirements** | **Type (Class)** | **Methods** | **Responsibilities** |
| Insert the orderId  and woodType into the woodMap. | **Wood** | public void **addWoodDetails**(String orderId, String woodType) | This method should add the orderId and woodType passed as argument into the woodMap. |
| Count the orderIds associated with the specified woodType. | **Wood** | public int **countOrderIdsByWoodType**(String woodType) | This method accepts woodType as an argument. If any orderId associated with the given woodType exist in the map, it returns the count of those orderId. If no orderId are found for the specified wood type, it returns -1.  ***Condition****:*   * *woodType is  case-sensitive.* |
| Retrieve the orderId's assocaited with the specified woodType. | **Wood** | public Set <String> **lookupOrderIdsByWoodType**(String woodType) | This method takes input as woodType and retrieves the order Ids, returning a set of those that are associated with the specified woodType.  ***Condition****:*   * *woodType is case-sensitive.* |

The main method in the **UserInterface**class receives the total number of wood details and their specifics from the user.

Invoke the **addWoodDetails**method to add the details into the ***woodMap***.

Prompt the user to enter the wood type. Use the **countOrderIdsByWoodType** method to determine the number of orderId's associated with the specified woodType. Print the result as: **"The count of orders based on <woodType> is <count>"**. If no orders are found for the given wood type, print: **"No orders found for <woodType>"**.

Once again prompt the user to enter the wood type. Use the **lookupOrderIdsByWoodType** method to retrieve the order Ids associated with the specified wood type. Print the result as: **"Order Ids based on <woodType> are <orderId>"** (refer sample output). If no order Ids are found for the given wood type, print: **"No order Ids were found for the wood type <woodType>"**.

**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.
* **Please do not use System.exit(0); to terminate the program.**

**Sample Input/Output 1:**

Enter the number of wood details to be added

**6**

Enter the wood details

**HSJK2878:Sandal**

**HGSU1762:Walnut**

**HSGN1278:Redwood**

**JHFI3628:Walnut**

**LKOP9812:Maple**

**BWSD1972:Walnut**

Enter the wood type to be searched

**Walnut**

The count of orders based on Walnut are 3

Enter the Wood type to identify the Order Ids

**Walnut**

Order Ids based on the Walnut are

HGSU1762

BWSD1972

JHFI3628

**Sample Input/Output 2:**

Enter the number of wood details to be added

**2**

Enter the wood details

**JGSH8712:Birch**

**SJJK6771:Fir**

Enter the Wood type to be searched

**Sandal**

No Orders found for Sandal

Enter the Wood type to identify the Order Ids

**Birch**

Order Ids based on the Birch are

JGSH8712

**Sample Input/Output 3:**

Enter the number of wood details to be added

**2**

Enter the wood details

**JGSH8712:Birch**

**SJJK6771:Cherry**

Enter the Wood type to be searched

**Birch**

The count of orders based on Birch are 1

Enter the Wood type to identify the Order Ids

**sandal**

No Order Ids were found for the woodType sandal