

Invalid Port Exception

Devi is a regular Customer of Thushith shipping Company. She once wanted to transfer few goods from India to her brother at Singapore. She placed a shipment order through the Company's official Shipping Management System giving all the needed details. The System gets the shipment id and shipment name as the input and displays a list of available ports. From the list of available ports Devi is allowed to select the arrival and departure ports for her shipment. Write a program to implement this requirement and when both arrival and departure ports are the same, it should throw on custom exception named **InvalidPortException**. Use Exception handling mechanism to handle the exception.

Exception specification:

Throw exception for the following scenario

When both arrival and departure ports are the same throw exception

Create a class named **Shipment** with the following private member variables/ attributes

- **Integer id**
- **String name**
- **Port arrivalPort**
- **Port departurePort**

1. Include a 4-argument constructor in this class. The arguments passed to the constructor are in the following order---**id,name,arrivalPort,departurePort**.
2. Include appropriate getters and setters.

Create a class named **Port** with the following member variables/ attributes

- **Integer id**
- **String country**
- **String name**

1. Include a 3-argument constructor in this class. The arguments passed to the constructor are in this order---**id,country,name**.
2. Include appropriate getters and setters.

Create a class named **ShipmentBo** with the following private member variables/ attributes

Include a method.

S.No	Method Name	Method Description
1	Boolean validateShipment(String s1, String S2,Port[]p)	To check whether the port is valid or invalid.
2	Void displayShipmentDetails (Shipment	To display the shipment details.

	shipmentObj,port[]ports,String p1,string p2)	
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Create a class named **InvalidPortException**

It will display "**InvalidPort**".

Create a class **Main** and write a main method to test the above class.

Note:

Port details are pre populated. Choose the port details from pre the populated data.

If the choosen port details are in lower case, handle the case and displat the output in upper case.

Problem Specification:

- 1 . Create a custom exception named as **InvalidPortException**.
2. Use System.out.format("%-15s%-15s%-15s%-15s/n","Shipment id", "Shipment name", "Arrival palce", "Depature place") to display the shipment details.

[Note:Strictly adhere to the object oriented specifications given as a part of the problem statement. Use the same class names, method names and attribute names.]

Input and Output Format:

Refer sample input and output for formatting specifications.

[All text in bold corresponds to input and rest the corresponds to output.]

Sample input and output 1:

Enter the shipment Id

1

Enter the shipment name:

Food item

Available ports are

Id Country Port name

1 India Chennai

2 America California

3 England London

4 Australia Melbourne

Enter the arrival port name

Chennai

Enter the departure port name

Melbourne

Shipment details :

Shipment Id	Shipment name	Arrival place	Departure place
1	Food item	Chennai/India	Melbourne/Australia

Sample input and output 2:

Enter the shipment Id

1

Enter the shipment name:

Electronic Items

Available ports are

Id	Country	Port name
1	India	Chennai
2	America	California
3	England	London
4	Australia	Melbourne

Enter the arrival port name

California

Enter the departure port name

California

InvalidPortException: The port name is invalid