Write a Java program that takes as input 4 Customer objects and the list of `Customer` objects with attributes customer name, and expense. The program computes the discount amount payable to each customer (assuming discount rate is 5% of the expense value, and is applicable for all customers having expense value $>= 1000$) and prints the discount amount in the format given in sample input-output. For customers who are not eligible for discount, it prints `Nondiscountable expense`. Complete the program as specified below:

- Define a checked exception (extends `Exception`) `DiscountException` that returns the string `Nondiscountable expense` if `getMessage` method of `DiscountException` is called.

- Define class `Customer`, which should have the following members:
  - Instance variables – `name` and `expense`
  - final variable – `discountrate` is
  - a suitable constructor to initialize the instance variables
  - accessors `getName()` to obtain the value of `name`
  - method `checkDiscount()` that computes the discount amount if the `expense` is $>= 1000$; otherwise, throws `DiscountException`.

- Class `ExceptionTest` has the main method and the method `displayCustomers`. In function `displayCustomers`, invokes the `checkDiscount()` on each customer object.

Sample Input:

```
Mark 1200
Adam 100
Jose 1100
Raj 1900
```

Output:

```
Mark : 60.0
Adam : Nondiscountable expense
Jose : 55.0
Raj : 95.0
```

Test Run Results

Test Case 1

Input	Expected Output	Actual Output
Jack 700	Jack : Nondiscountable expense	
Adam 100	Adam : Nondiscountable expense	
Jose 1100	Jose : 55.0	
Raj 1900	Raj : 95.0	

Test Case 2

Input	Expected Output	Actual Output
Lata 900	Lata : Nondiscountable expense	
Puja 1100	Puja : 55.0	
Vinita 1900	Vinita : 95.0	
Sudha 130	Sudha : Nondiscountable expense	

Submission Results

Test Case 1

Input	Expected Output	Actual Output
Anil 150	Anil : Nondiscountable expense	
Nisha 700	Nisha : Nondiscountable expense	
Amrit 2500	Amrit : 125.0	
Arun 800	Arun : Nondiscountable expense	

Test Case 2

Input	Expected Output	Actual Output
Sona 900	Sona : Nondiscountable expense	
Raj 1900	Raj : 95.0	
Puja 1000	Puja : 50.0	
Vinita 1990	Vinita : 99.5	