Course Outcomes (CO)	LO1	LO2	LO3
CO1			
CO2	√	√	√
CO3			

Answer the following question.

1. A broadband company, Malaysia SuperBand charges its customers according to the type of package chosen:

Package Type	Internet Quota	Price	Exceed Quota Usage Charge
Basic (B)	6GB	48	RM0.10 every 1MB
Advanced (A)	10GB	88	RM0.05 every 1MB

a) Write the following function: `double calCharge (char, int)`. This function will calculate the charge for internet use. It receives the package type and the amount of data used (in megabyte) as parameters and then calculates and returns the charge.

Example calculation

Package: B
Internet use: 6800 MB (6.8 GB) - exceeds quota
Charge= Basic charge + Extra charge
        = 48 + (6800 - 6000) * 0.20
        = 48 + 80
Charge= RM 128

Package B
Internet use: 5500 MB (5.5 GB) - does not exceed quota
Charge= Basic charge
        = RM48

a) Write a Java application program to calculate the bill for Malaysia SuperBand's customers. It starts by asking for the number of customers. For each customer it will then ask for their name, their package type and the amount of data used. It then displays the amount to be paid by the customer. The program will call the function in (a) to perform related tasks.

At the end, the program will display the total amount to be collected from all customers, the number of customers for each package type and the name of the customer who has to pay the highest amount.

Sample output screen:

```
******* Welcome to Malaysia SuperBand ********


Please enter the number of customers: 20

Customer 1
Enter Name: Abdul Rahman
Enter Package type (A - advance, B - Basic): B

Enter Total Internet use (in MB): 6800
Total to be paid by Abdul Rahman: RM 128


Customer 2:
Enter Name: Siti Hayati
Enter Package type (A - advance, B - Basic): A
Enter Total Internet use (in MB): 9000
Total to be paid by Siti Hayati: RM 88


Customer 3:
Enter Name: Muhammad Ali
Enter Package type (A - advance, B - Basic): A
Enter Total Internet use (in MB): 10000
Total to be paid by Muhammad Ali: RM 138

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Total Charges: RM .....
Number of customers for package A: ........
Number of customers for package B: ........
The customer with the highest charge is ..............
```