

1. Create a class to specify data of customers in a bank. The data to be stored is: Account number, Name, Balance in account. Assume maximum of 200 customers in the bank.
 - (a) Write a function to print the Account number and name of each customer with balance below Rs. 100.
 - (b) If a customer request for withdrawal or deposit, it is given in the form:
Acct. no, amount, code (1 for deposit, 0 for withdrawal)

Write a program to give a message, “The balance is insufficient for the specified withdrawal”.

2. The **X** and **Y** coordinates of 10 different points are entered through the keyboard. Write a program to find the distance of last point from the first point (sum of distance between consecutive points).
3. A library charges a fine for every book returned late. For first 5 days the fine is 50 paise, for 6-10 days fine is one rupee and above 10 days fine is 5 rupees. If you return the book after 30 days your membership will be cancelled. Write a program to accept the number of days the member is late to return the book and display the fine or the appropriate message.
4. An Insurance company follows following rules to calculate premium.
 1. If a person’s health is excellent and the person is between 25 and 35 years of age and lives in a city and is a male then the premium is Rs. 4 per thousand and his policy amount cannot exceed Rs. 2 lakhs.
 - (2) If a person satisfies all the above conditions except that the sex is female then the premium is Rs. 3 per thousand and her policy amount cannot exceed Rs. 1 lakh.
 - (3) If a person’s health is poor and the person is between 25 and 35 years of age and lives in a village and is a male then the premium is Rs. 6 per thousand and his policy cannot exceed Rs. 10,000.
 - (4) In all other cases the person is not insured.
5. A university has the following rules for a student to qualify for a degree with A as the main subject and B as the subsidiary subject:
 - (a) He should get 55 percent or more in A and 45 percent or more in B.
 - (b) If he gets than 55 percent in A he should get 55 percent or more in B. However, he should get at least 45 percent in A.
 - (c) If he gets less than 45 percent in B and 65 percent or more in A he is allowed to reappear in an examination in B to qualify.
 - (d) In all other cases he is declared to have failed.Write a program to receive marks in A and B and Output whether the student has passed, failed or is allowed to reappear in B.

6. Write a program to calculate overtime pay of 10 employees. Overtime is paid at the rate of Rs. 12.00 per hour for every hour worked above 40 hours. Assume that employees do not work for fractional part of an hour.

7. Define a class in JAVA with following description:

Data Members

- A data member Flight number of type integer
- A data member Destination of type string
- A data member Distance of type float
- A data member Fuel of type float
- A member function CALFUEL() to calculate the value of Fuel as per the following criteria

Distance	Fuel
<=1000	500
more than 1000 and <=2000	1100
more than 2000	2200

Member methods

- A function FEEDINFO() to allow user to enter values for Flight Number, Destination, Distance & call function CALFUEL() to calculate the quantity of Fuel
- A function SHOWINFO() to allow user to view the content of all the data members