

Lab Assignment #4

Instructor: Dr. Lalatendu Behera

Assignment Policy: Read all the instructions below carefully before you start working on the assignment, and before you make a submission.

- Please include your name and roll number with the submission.
- This assignment is due at 10:30 AM. Late assignments would be penalized by deducting (0.25 no. of minutes of lateness) % of the marks. Any form of copying will incur zero marks.
- The Institute Academic Code of Conduct will be strictly enforced.

Problem 1: Internet Service Provider

(10 points)

An Internet Service Provider charges its subscribers every month based on the information provided in the following table:

Table 1: Rate Chart

Data Usage (n) in GBs	Charges in \$
$0.0 < n \leq 1.0$	250
$1.0 < n \leq 2.0$	500
$2.0 < n \leq 4.0$	750
$4.0 < n \leq 6.0$	1000
$6.0 < n \leq 8.0$	1250
$8.0 < n \leq 10.0$	1500
$n > 10.0$	2000

Given the amount of data used by the subscriber (i.e. n), write a program to calculate the charges to be paid by the subscriber. Print a message to indicate bad data as well.

Problem 2: Trading

(10 points)

There is a trader who wants to make money from the stock market. He trades in the Infosys stock. The strategy is to buy at the lowest and sell at the highest. Write a program to help him to make money. The trader trades at least 25 stocks at a time. He wants to buy the stock if the price is above 1480 and sell the stock when the price 1523. If the stock goes below 1460, he sells the stocks and bears the loss. Write a program that takes the stock price as input from time to time and compute the profit/loss of the trader. Also, note the amount of time he remains in the trade.