

CS110: Computer Programming Lab

Department of CSE

IIT, Guwahati

Module 01 Stage 02 Exercise 08

Please read Module01 Stage 02 practice drill before you begin work on this problem.

Problem description

A bank gives adds 1% as interest each month. All amounts are rounded to the nearest 1 paise. Thus, Rs 100 deposit will receive interest equal to Rs 1. If the amount is not withdrawn the second month will get an interest of Rs 1.01.

Compute how much Rs 555 be if left in an account for one year.

Guiding instructions

The computation is easy but for two issues. First, the money accounts are computed to nearest paise; floating numbers use significantly more precision. You can solve this problem by adopting `int` values by converting all intermediate computation to paise from rupee.

Even so, we may need to round the numbers to the nearest paise. For example, 10.49 paise should be treated as 10 paise. On the other hand, 10.50 paise becomes 11 paise. This can be done by a simple trick to compute interest:

```
(int)((float) amount*1.01 +0.5)
```

For printing the result amount you will need to print rupees (`amount/100`), numbers of 10 paises (`(amount%100)/10`), and remaining odd paises (`amount%10`). For example, if amount is 1204 paise, you will can print it as sequence of following int values and a string: 12, ".", 0, 4 to get 12.04.