Lab # 8

November 17, 2016

Task 1: A person invests rupees 1000.00 in a savings account with 5% annual profit (i.e., interest rate). Assuming that all the interest is calculated on the deposit in the account, calculate and print the total amount of money in the account at the end of each year for 10 years. Use the following formula for determining these amounts: **(5 marks)**

$$a = p(1 + r)^n$$

Where,

p is the original amount invested (i.e., the principal)

r is the annual interest rate

n is the number of years

a is the amount on deposit at the end of the nth year.

Create a program which repeats its steps for interest rates of 6%, 7%, 8%, 9%, and 10%. The program should display the information like this:

```
Year      Amount on deposit (with 5% interest rate)
   1                1050.00
   2                1102.50
   3                1157.63
   4                1215.51
   5                1276.28
   6                1340.10
   7                1407.10
   8                1477.46
   9                1551.33
  10                1628.89

Year      Amount on deposit (with 6% interest rate)
   1                  ---
   2                  ---
```

Task 2: Write a C program that sums a sequence of integers. Assume that the first integer read with `scanf` specifies the number of values remaining to be entered. Your program should read only one value each time `scanf` is executed. A typical input sequence might be: **(5 marks)**

```
5 100 200 300 400 500
```

Grading and LMS Submission

- Make sure that the lab engineer has graded your programs until 5 pm.
- You've uploaded the C source files in Zip format over LMS until 5:30 pm.