

# Northern Michigan University (Marquette Co, MI)

## CS 202-02-25F: iOS / iPhone Programming

### Program 1

Due: Wednesday 3 September 2025 2:00 P.M. EDT

Create a folder called “PG1” in the top level of your CS202-02-25F folder on PHILOS. Copy both .py files into the PG1 folder. Place a (possibly empty) file or folder called “DONE” into the PG1 folder when you are ready to have your program graded.

Write the following two programs in Python:

1. Your program should ask the user to enter the amount of money in a savings account and then to ask for an annual percentage interest rate. (APR). You should then print out the amount of money in the savings account after one year, rounded to the nearest cent.

For example:

How much money is in your savings account right now? **4671.32**

What is the annual percentage rate? **4.5**

After one year, you should have \$4881.53

Call this program “interest.py”

2. Ask the user for the initial height of a ball in feet. Then ask the user for the percentage of the original height it returns to after a bounce. (For example, if the initial height is 100 ft., and the percentage is 90%, then after the first bounce, it rises to the height of 90 ft., and after the second bounce, it rises to the height of 81 ft., and so forth.) Your program should print the total distance the ball travels before it bounces to a stop.

For example:

What is the initial height of the ball (in feet)? **100**

What is the bounce height percentage? **90**

The ball will travel 1900 feet before it bounces to a stop.

Call this program “ball.py”

Your programs should be broken up into appropriate methods and commented adequately.