

Note: Please submit your project via Spark. You only need to submit one file called “Project1.java”. Do not submit “Project1.class” or “Project1.java~”.

Write a class **Project1** that performs the following three actions. Use an instance of the Scanner class to read input. All code should be included in one “main” method.

Part 1:

Read a double and an integer. Concatenate them to form a String, separating them with a tab. Print the result. You must create the String on one line and then print it out using a separate line of code.

Part 2:

Using kinetics, the time during which an object falls in freefall can be used to determine the height from which it fell. Using the following formula, read a double precision value which is the time an object takes to fall and determine the height from which it fell. Store the result in a float variable. Use a separate line of code after the store operation to print out the result. Use a value of 32 feet/second as the acceleration due to gravity.

$$\text{Height} = \frac{1}{2} * (\text{acceleration due to gravity}) * (\text{time})^2$$

Part 3:

Read three Strings and print them in the reverse order from which you read them. That is, print the third String first, the first String last, and the second String between them. Insert your own String between the third and second String when you print them.

Use the example below to debug your program, where the input is denoted by the ‘>’ character. Given the following input, your program should produce the following output; different input should yield different output.

Enter a double:

> 1.3

Enter an integer:

> 2

1.3 2

For how many seconds did the object fall?

> 5.2

The object fell 432.64 feet.

Enter the first String:

> first

Enter the second String:

> second

Enter the third String:

> third

third mystring second first