

## Coding in Python: Algorithms : Part 1

### Introduction:

Today you will be learning to bridge the gap between your flow charts and python code using pseudocode. Pseudocode is useful to programmers in many roles. This question answered on stack overflow.com illuminates its usefulness.

### **Question:**

*How often do you use pseudocode in the real world?*

### **Answer:**

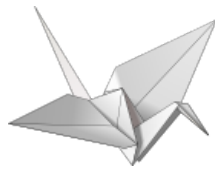
*I use it all the time. Any time I have to explain a design decision, I'll use it. Talking to non-technical staff, I'll use it. It has application not only for programming, but for explaining how anything is done.*

*Working with a team on multiple platforms (Java front-end with a COBOL backend, in this case) it's much easier to explain how a bit of code works using pseudocode than it is to show real code.*

*During design stage, pseudocode is especially useful because it helps you see the solution and whether or not it's feasible. I've seen some designs that looked very elegant, only to try to implement them and realize I couldn't even generate pseudocode. Turned out, the designer had never tried thinking about a theoretical implementation. Had he tried to write up some pseudocode representing his solution, I never would have had to waste 2 weeks trying to figure out why I couldn't get it to work.*

### Instructions:

- Login to the system we are using to access Jupyter Notebooks
  - <https://my.datascientistworkbench.com/>
  - <https://databricks.com/>
- If you do not already have one, create an account on [IBM Big Data University](#) .
  - [Video Tutorial](#)
- For the lesson listed below:
  - Open or Clone the long notebook URL
  - Read the instructions contained in the Jupyter Notebook
  - Work with your partner to complete pseudo code for each challenge
  - Review your pseudo code with your instructor
  - Work with your partner to complete working python code for each challenge
- Lesson: Algorithms : Part 1
  - <https://raw.githubusercontent.com/frankcarmody/learnPython/master/learnPython.14.Algorithms.Part1.ipynb>



# OPENCSF

## What to Turn in For Your Grade

- Your instructor may choose to use the [Pseudo Code Rubric](#) to evaluate your pseudo code.
- Your instructor may choose to use the [Programming Rubric](#) to evaluate your Python Code.
- Select “Print Preview” in the file menu of the python notebook.
- Check that you can see the code you have written in the print preview.
- Check that your screenshot for each tutorial unique and could not be confused as a duplicate screenshot created by another student. This should include
  - Your name in comments in the code
  - Your name typed into the console
  - Use of a different console or Code color scheme.
- Save the print preview as a PDF
- Upload your PDF to your lms or where instructed by your instructor