

# Data Analysis Professional Track

Top 10 Tips  
Bikeshare Data Analysis Project





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## Study the classroom lessons

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One significant mistake students make in learning is jumping into the water before they learn to swim . In other words, they blindly embark working on assignments without spending the required time to learn the pertinent concepts and procedures that will enable their work on assignments later on.

# Tip 1



## Loops, conditional statements and indentation

- Focus on when to use those kinds of statements and when and how to quit from them, ask yourself what I want to accomplish and how this will help me do that.
- The indentation is super important to get your code functioning as expected.
- If such capabilities are used inside a function, keep track of the indentation as you will have multiple levels of indentations, those of the loops or conditionals and that of the function.
- Some useful resources:  
[https://www.w3schools.com/python/gloss\\_python\\_indentation.asp](https://www.w3schools.com/python/gloss_python_indentation.asp)  
<https://www.programiz.com/python-programming/statement-indentation-comments>

Tip 2



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## Functions with and without return statements

- Focus on the purpose of the function (What is its main role?)
- A function without return statements returns nothing ("none" type objects). But it can be useful to print some information.
- A function with a return statement returns an object that can be assigned to a variable and then used in different contexts or places in your code.

Tip 3



## Pandas

- Focus on how to access the columns and rows in pandas, slicing the dataframe is really important to comprehend.
- Using erroneous column names will usually give you a key error. So, pay attention in writing the names of the columns right.

# Tip 4



## Scripting (Lesson - 6)

- Focus on the Error handling part and don't get panic over having errors, they are your way to learn and evolve as a python programmer and the computer's way to communicate with you.
- Syntax and indentation errors are really basic and easy to analyze. Just look for the small arrow in the error message and investigate the code that comes before that arrow (the arrow is like this ^)
- Focus on the use of the main function (This will come in handy in your project)
- Try to get your hands dirty in testing codes with functions. This is really crucial to build your project script.

Tip 5



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## Testing Your code

- **Scripts are not essays**, you can't keep writing code without testing frequently before adding new lines of code. I usually test after adding one or two lines of code and then add new code.
- Focus on the process of building the script gradually rather than getting it done as a whole and delaying the testing to be the last step.

Tip 6



## Problem Sets preceding the project

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The problem sets represent around 25% of your project work and will come in handy when writing your script. So, pay attention to them.

**Tip 7**





## Display raw data in your project

- Topic one with the whole script structure.
- Thought process of the approach

Tip 8



## Dealing with errors

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Google is your best friend, and stackoverflow will come to rescue.

**Tip 9**



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## The Community Question hub

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Search by the function names, or by any term from used in your script like ("display raw data" - "get\_filters()" - load\_data() - most common route - most common trip) and you will find wonders.

# Tip 10