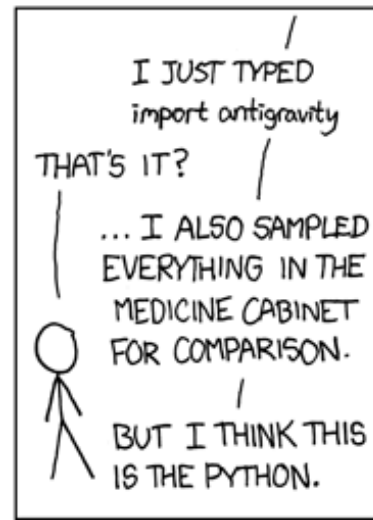
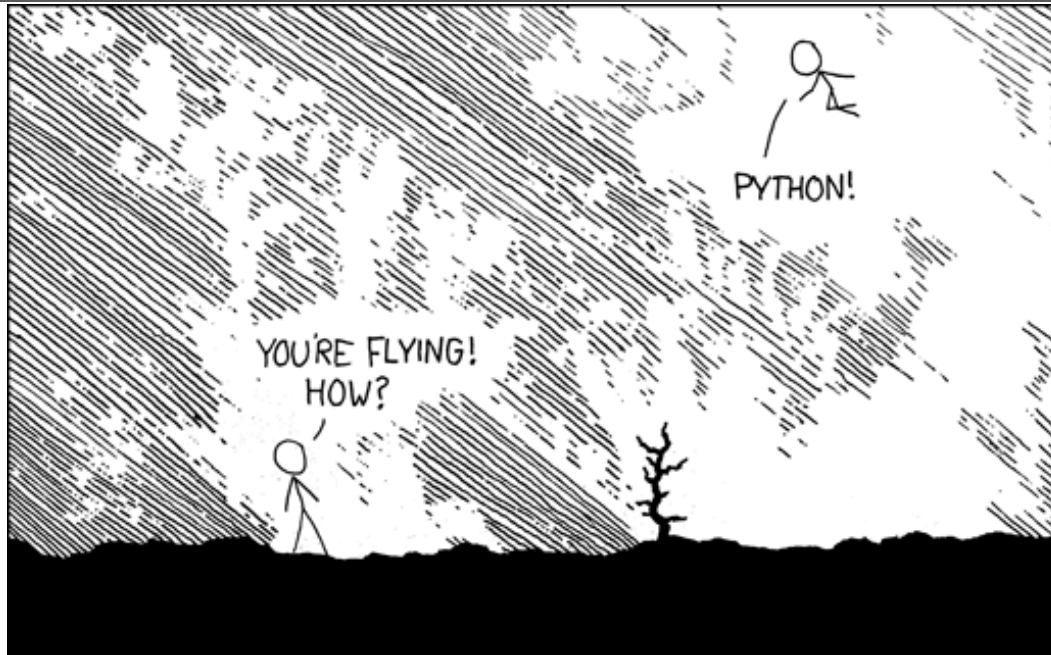


The single most important skill for a computer scientist [engineer] is problem solving. Problem solving means the ability to formulate problems, think creatively about solutions, and express a solution clearly and accurately. As it turns out, the process of learning to program is an excellent opportunity to practice problem-solving skills.

– From “Think Python” by Allen Downey

# Python

<https://xkcd.com/353/>



# Hello World

- Python

```
print("Hello world")
```

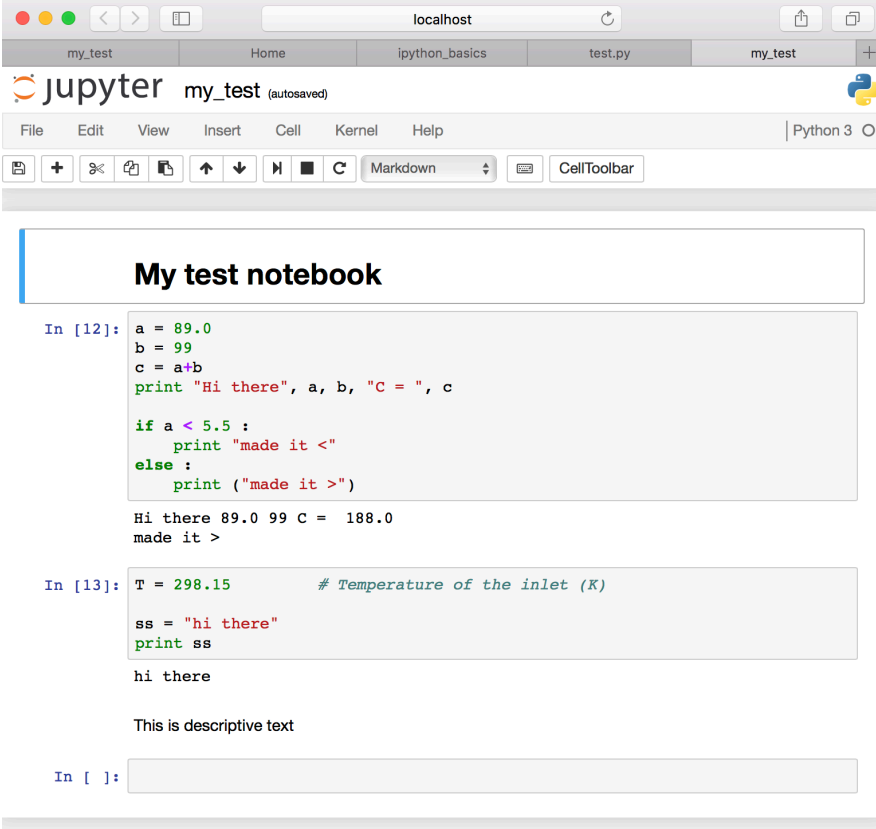
- C++

```
#include <iostream>
using namespace std;

int main() {
    cout << "Hello world\n";
    return 0;
}
```

# Programing

- Environment
- Syntax
- Variables
- Arrays
- Loops
- Conditionals
- Functions
- Classes
- Etc.



The screenshot shows a Jupyter Notebook interface in a web browser. The browser address bar shows 'localhost'. The notebook title is 'my\_test (autosaved)'. The interface includes a menu bar with 'File', 'Edit', 'View', 'Insert', 'Cell', 'Kernel', and 'Help'. Below the menu bar is a toolbar with various icons for file operations and cell execution. The notebook content is titled 'My test notebook' and contains two code cells.

```
In [12]: a = 89.0
         b = 99
         c = a+b
         print "Hi there", a, b, "C = ", c

         if a < 5.5 :
             print "made it <"
         else :
             print ("made it >")

Hi there 89.0 99 C = 188.0
made it >
```

```
In [13]: T = 298.15      # Temperature of the inlet (K)
         ss = "hi there"
         print ss

hi there

This is descriptive text
```

```
In [ ]:
```

# Roadmap...

- Schedule
- Scientific Python Summary

