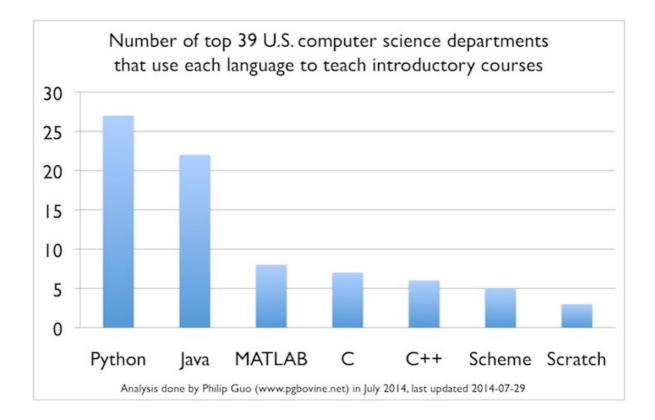
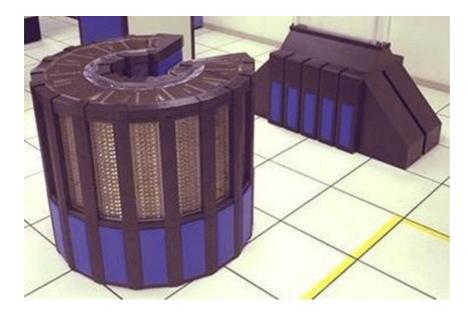
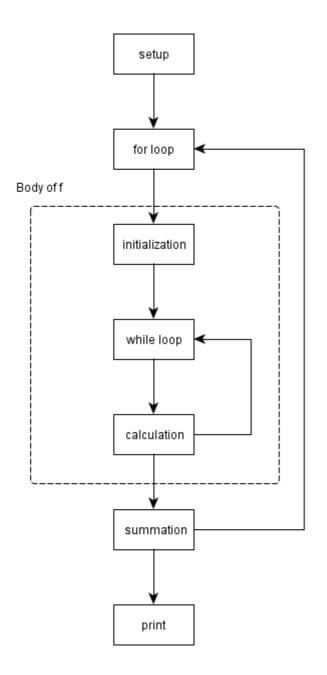
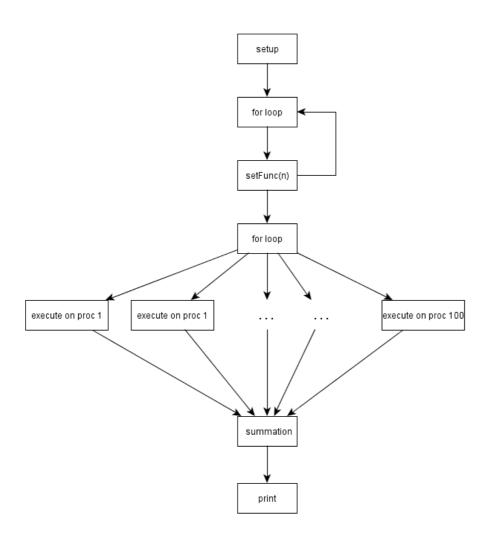
Chapter 1: Using IPython for HPC



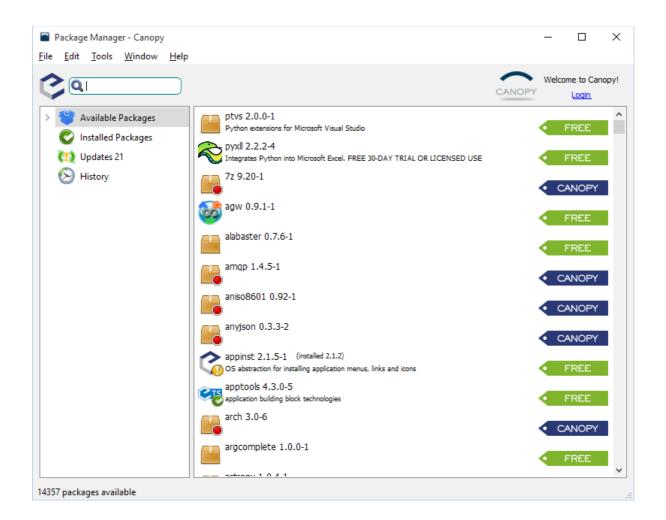
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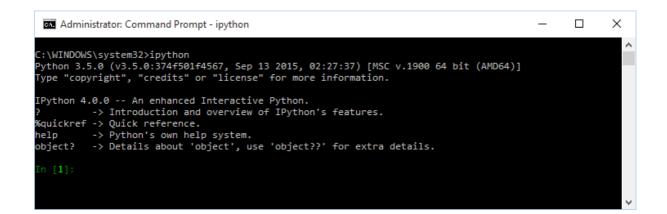




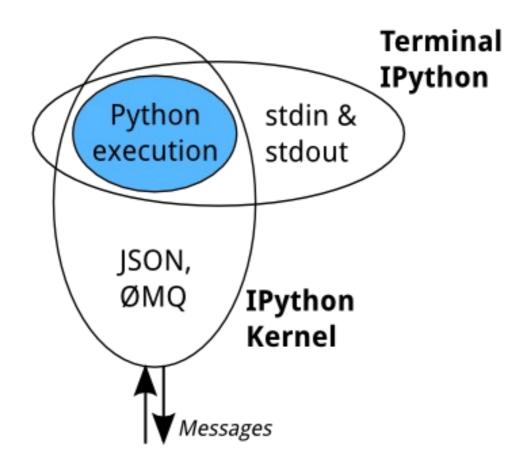


Chapter 2: Advanced Shell Topics





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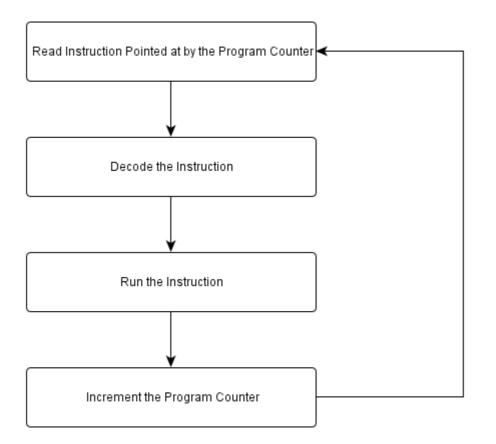


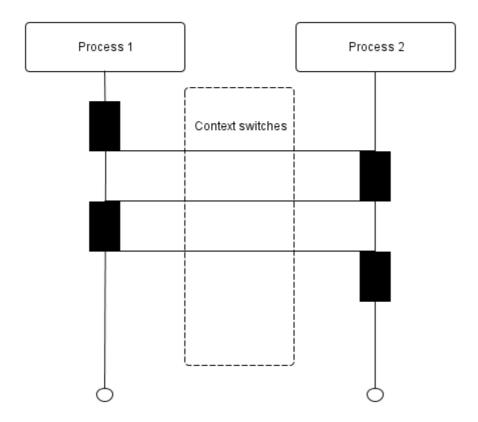
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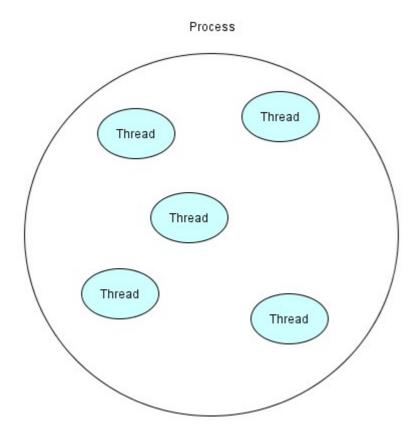
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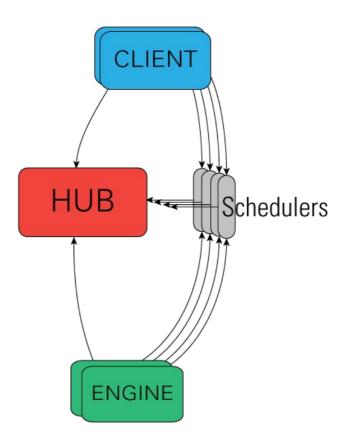
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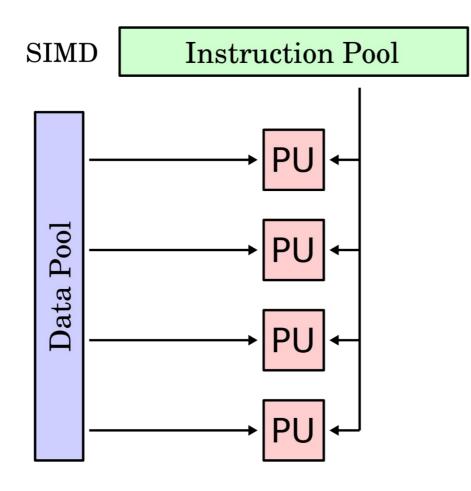
Chapter 3: Stepping Up to IPython for Parallel Computing





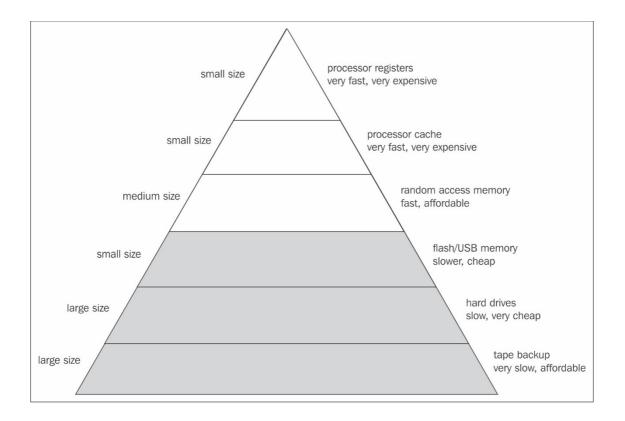


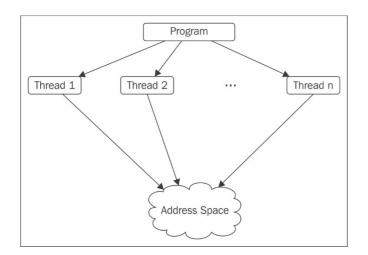




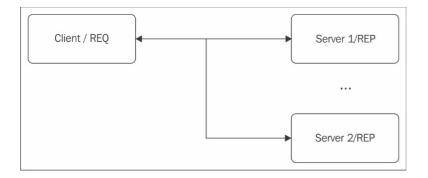
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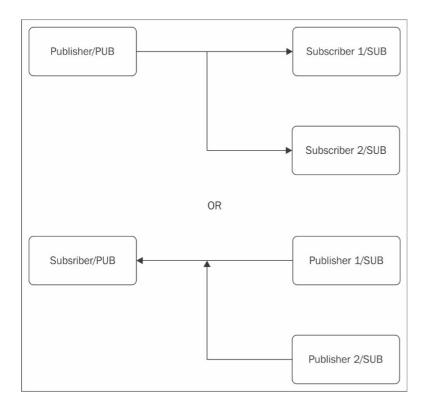
4: Messaging with ZeroMQ and MPI

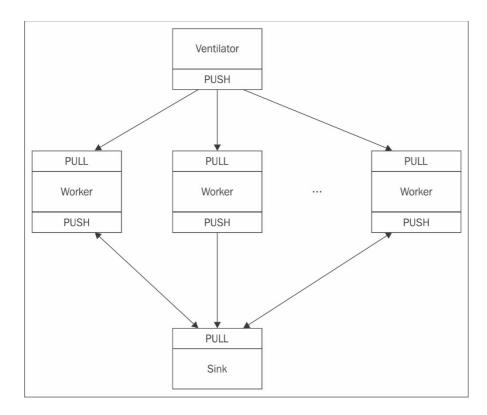


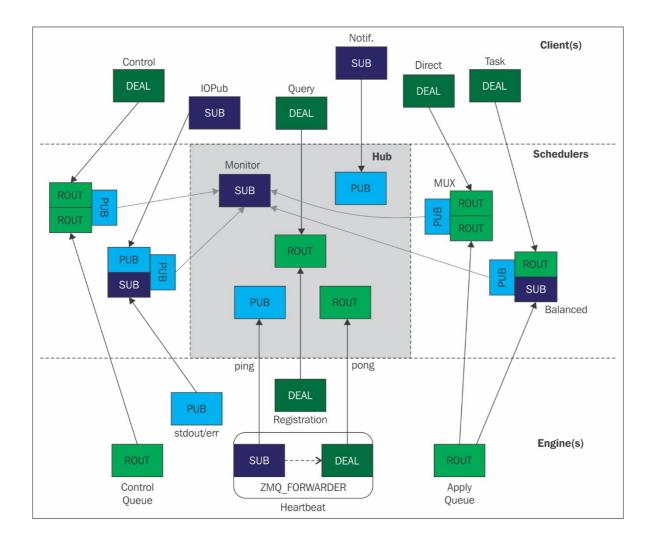


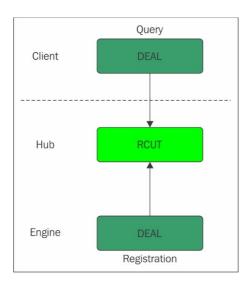


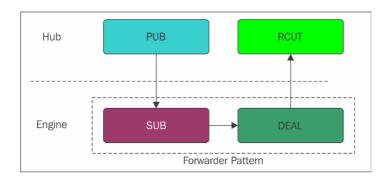


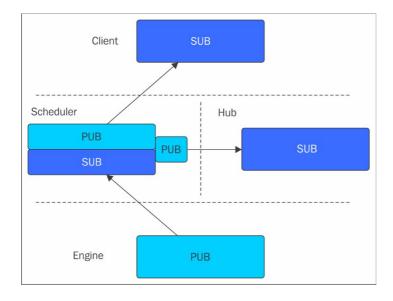




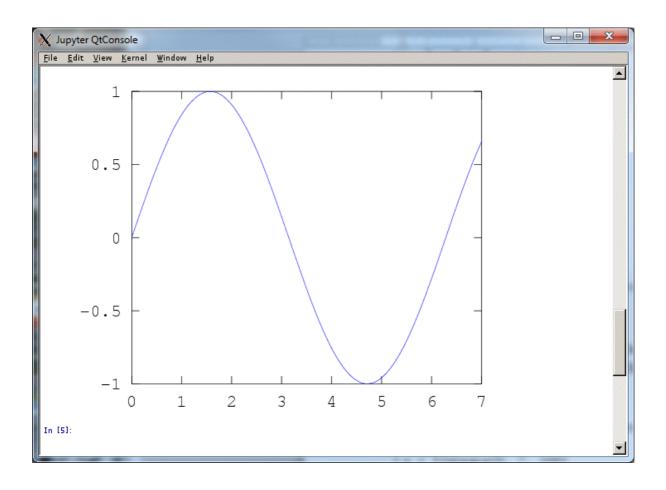


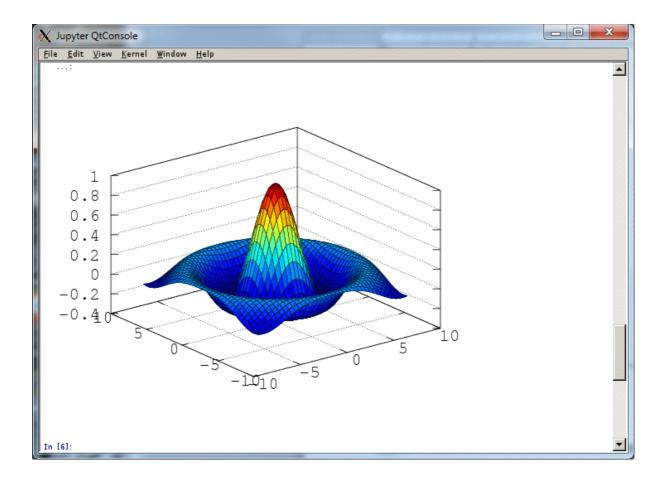


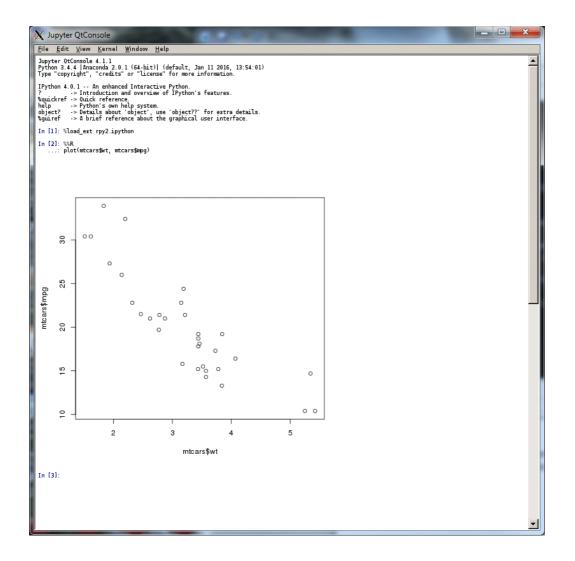


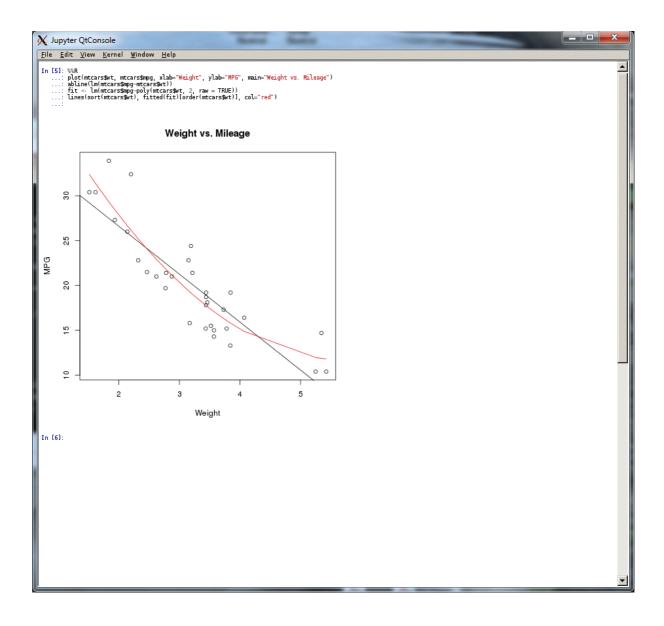


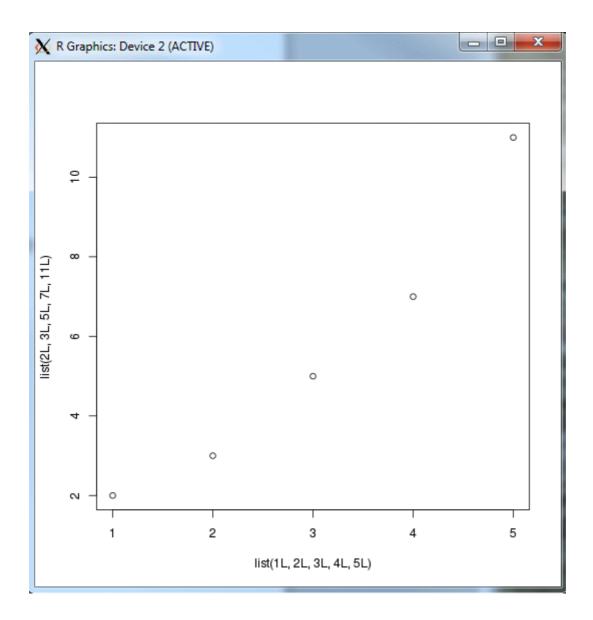
Chapter 6: Works Well with Others -IPython and Third-Party Tools





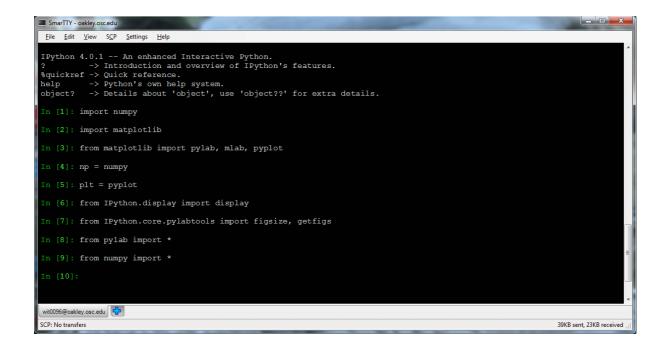


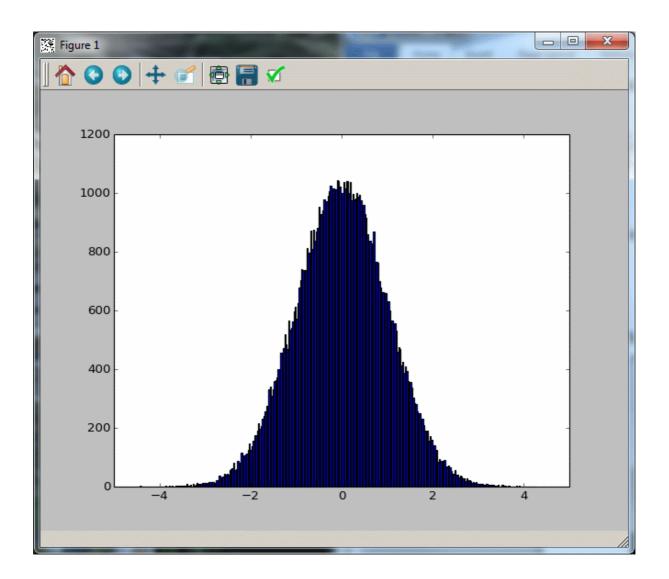


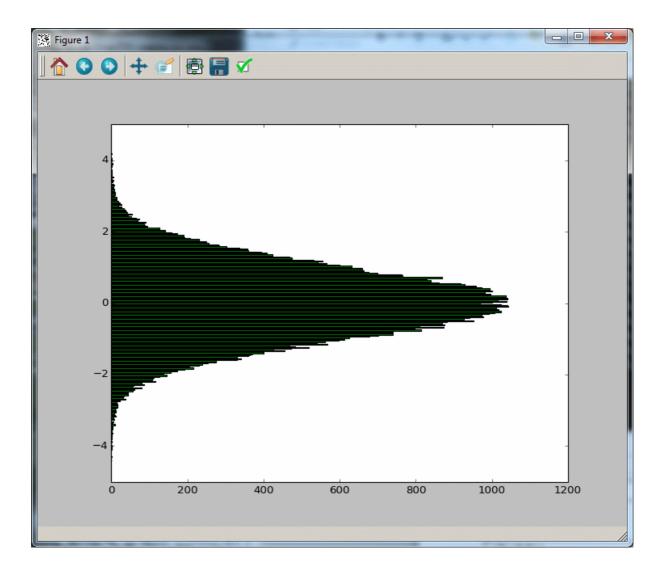


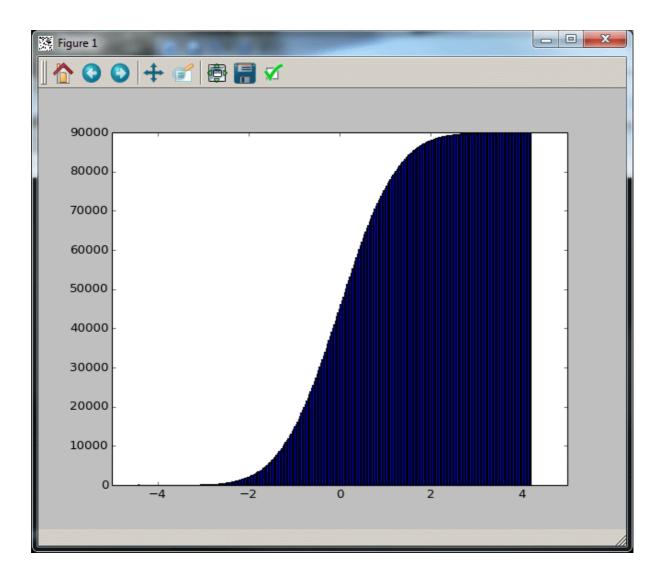
Chapter 7: Seeing Is Believing-Visualization

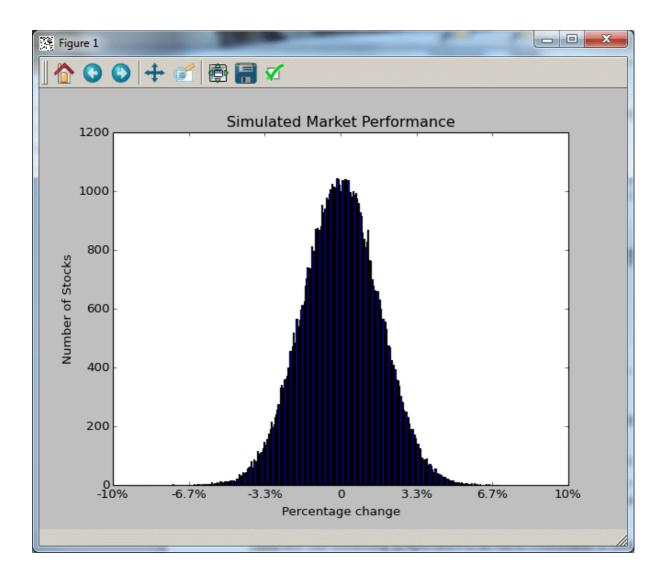
😑 🗉 🛛 dipanjan@dipanjan-K53SD: ~ dipanjan@dipanjan-K53SD:~\$ ipython --matplotlib Python 2.7.11 |Anaconda 2.3.0 (64-bit)| (default, Dec 6 2015, 18:08:32) Type "copyright", "credits" or "license" for more information. IPython 3.2.0 -- An enhanced Interactive Python. Anaconda is brought to you by Continuum Analytics. Please check out: http://continuum.io/thanks and https://anaconda.org -> Introduction and overview of IPython's features. %quickref -> Quick reference. help -> Python's own help system. object? -> Details about 'object', use 'object??' for extra details. GLib-GIO-Message: Using the 'memory' GSettings backend. Your settings will not be saved or shared with other applications. (python:6628): Gtk-WARNING **: GModule (/usr/lib/x86_64-linux-gnu/gtk-2.0/2.10.0 /immodules/im-ibus.so) initialization check failed: GLib version too old (micro mismatch) (python:6628): Gtk-WARNING **: Loading IM context type 'ibus' failed (python:6628): Gtk-WARNING **: GModule (/usr/lib/x86_64-linux-gnu/gtk-2.0/2.10.0 /immodules/im-ibus.so) initialization check failed: GLib version too old (micro mismatch) (python:6628): Gtk-WARNING **: Loading IM context type 'ibus' failed (python:6628): Gtk-WARNING **: GModule (/usr/lib/x86_64-linux-gnu/gtk-2.0/2.10.0 /immodules/im-ibus.so) initialization check failed: GLib version too old (micro mismatch) (python:6628): Gtk-WARNING **: Loading IM context type 'ibus' failed Using matplotlib backend: Qt4Agg In [**1**]:

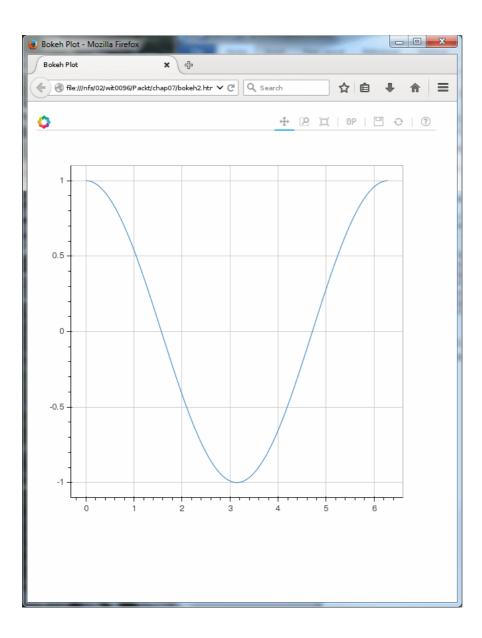


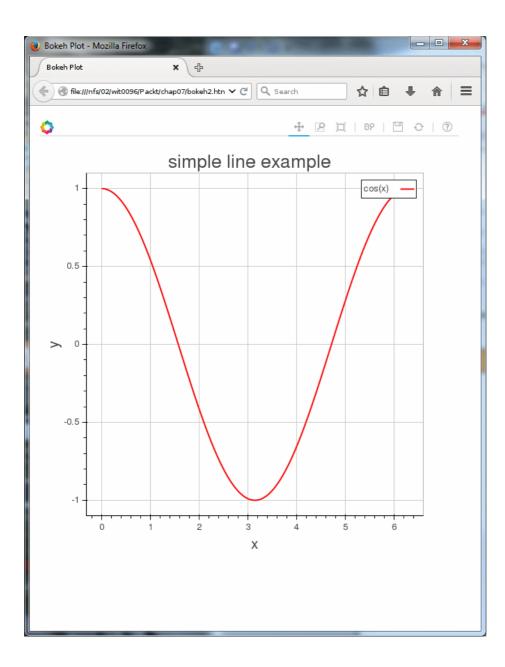


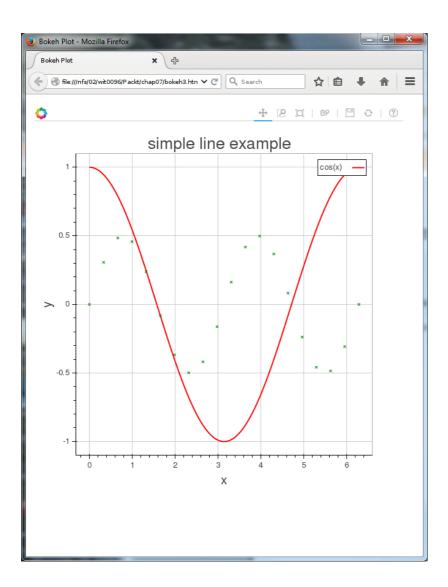


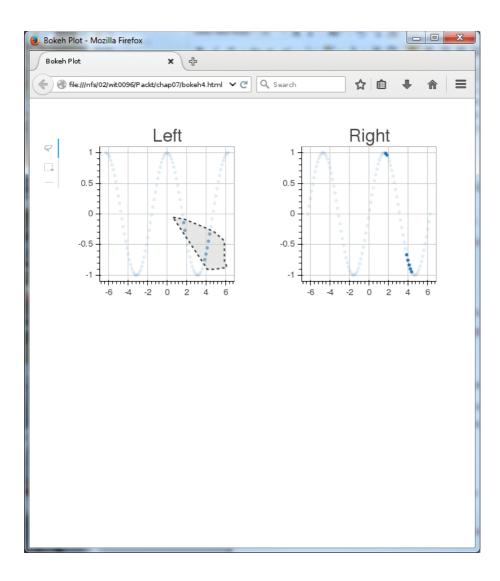


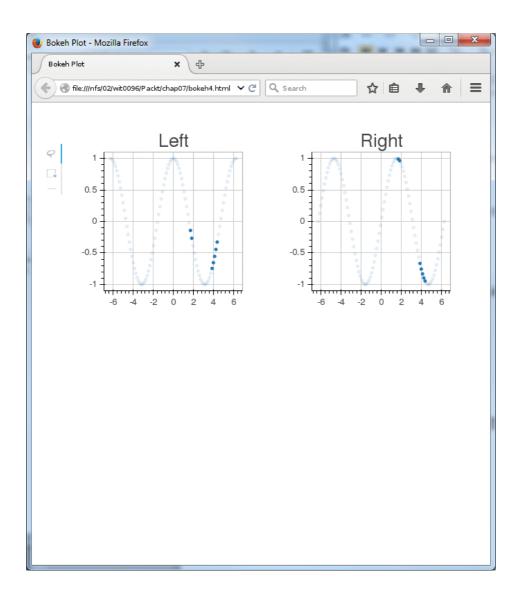


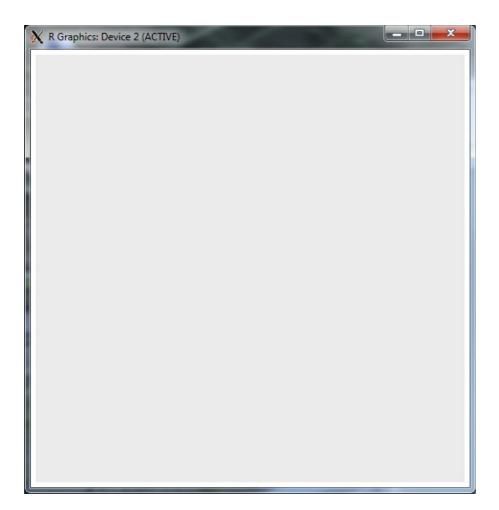


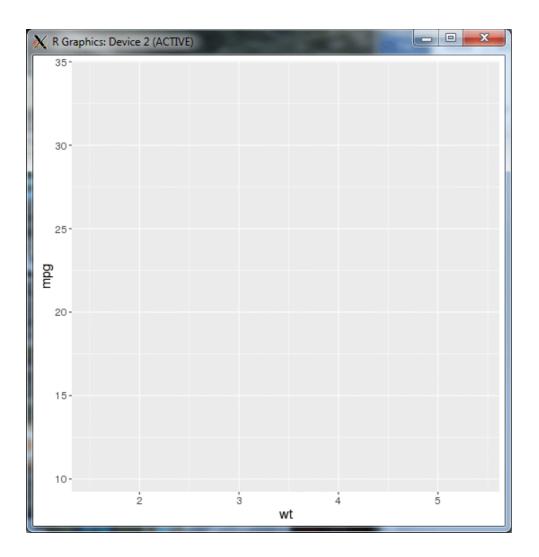


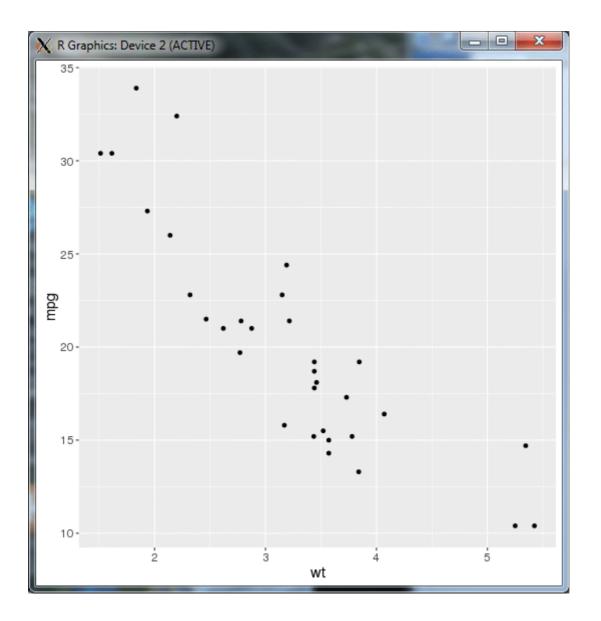


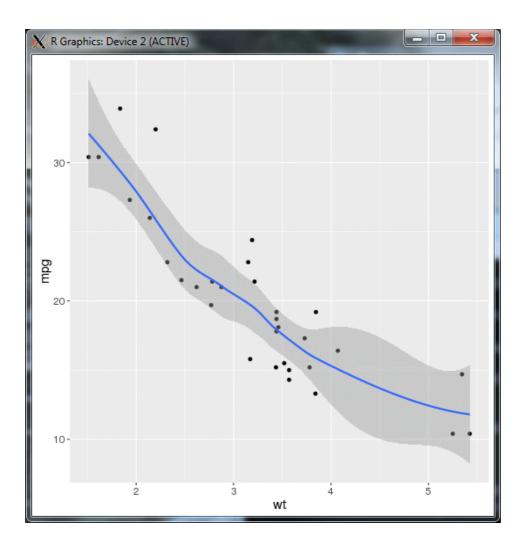


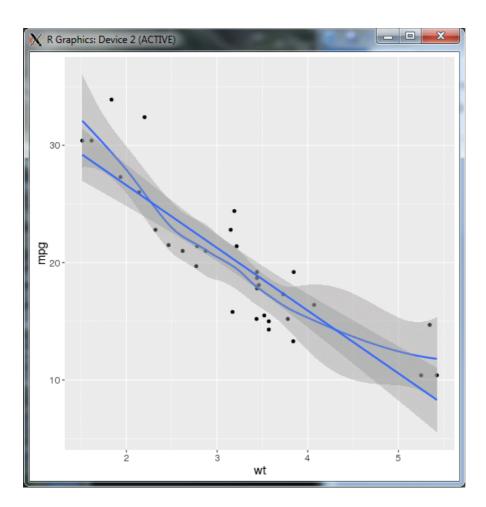


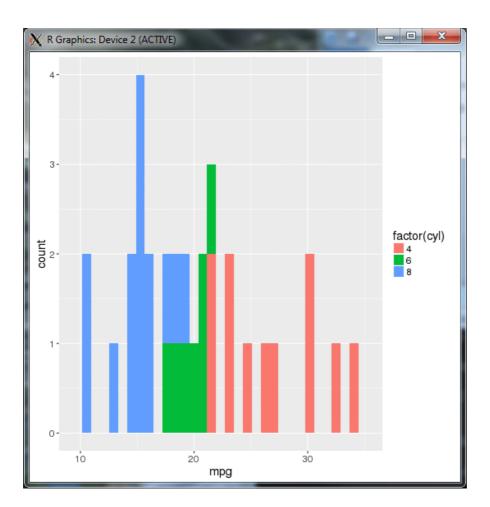


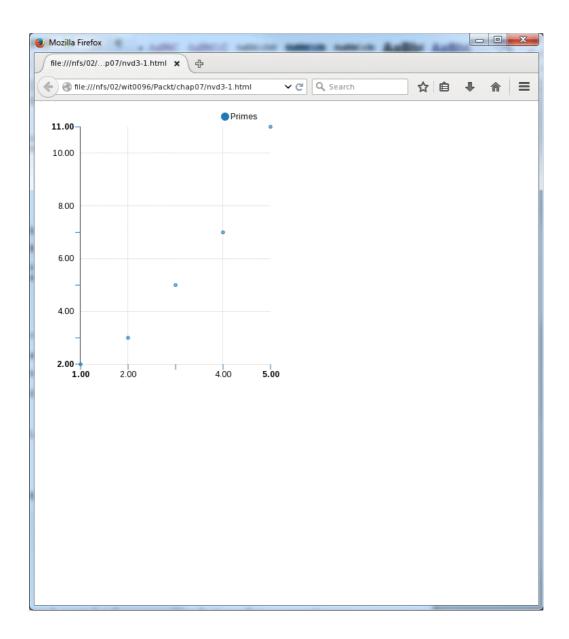


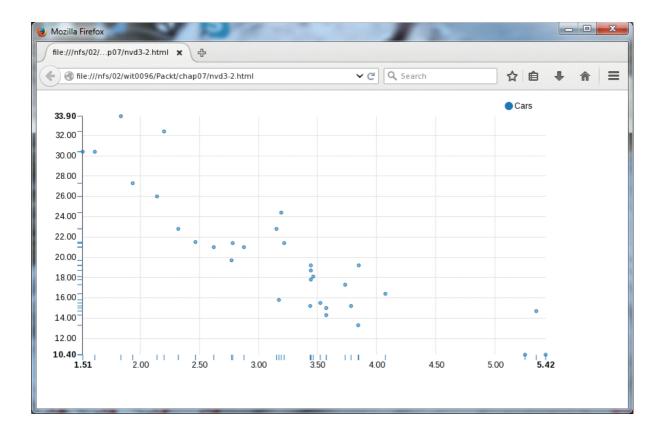


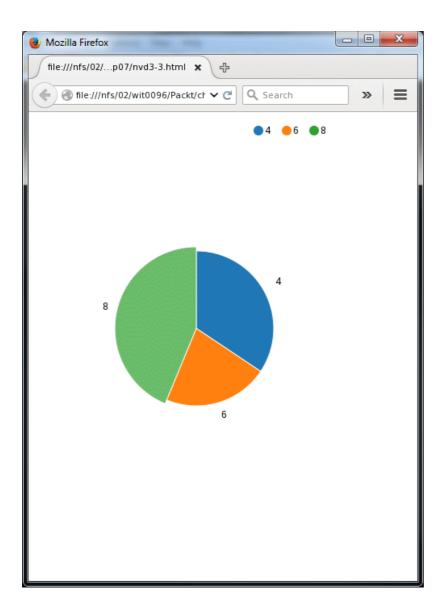


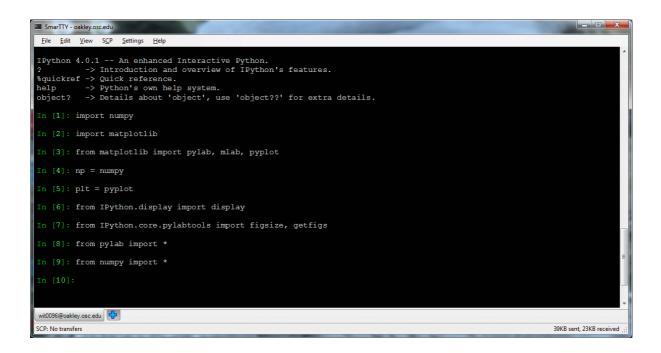




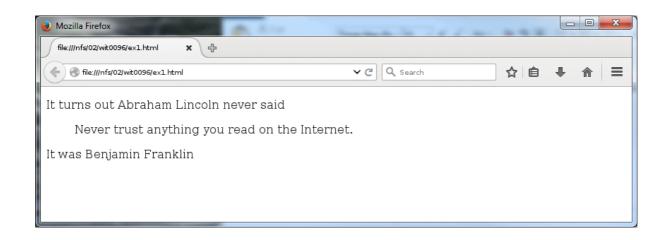








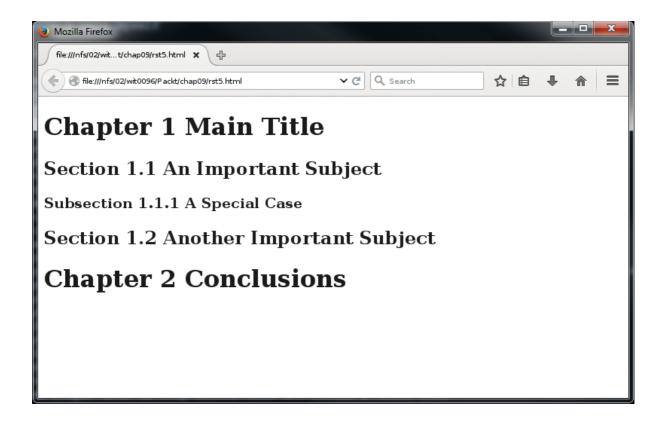
Chapter 9: Documentation



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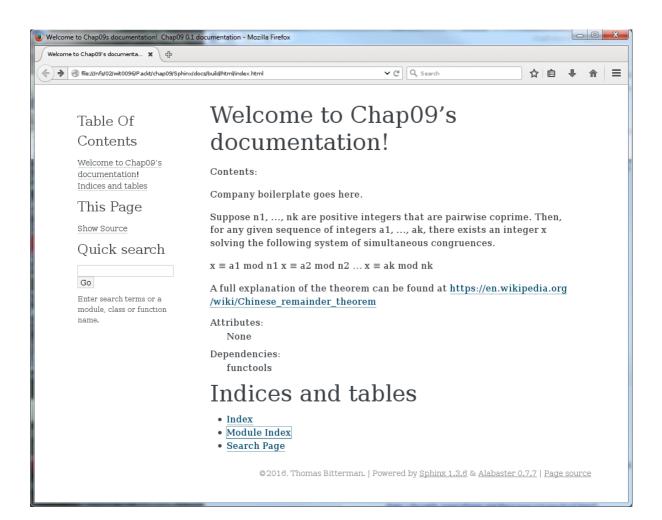


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Contents:

Company boilerplate goes here.

Suppose n1, ..., nk are positive integers that are pairwise coprime. Then, for any given sequence of integers a1, ..., ak, there exists an integer x solving the following system of simultaneous congruences.

 $x \equiv a1 \bmod n1 \ x \equiv a2 \bmod n2 \ \dots x \equiv ak \bmod nk$

A full explanation of the theorem can be found at <u>https://en.wikipedia.org</u> /wiki/Chinese_remainder_theorem

Attributes:	
None	

Dependencies:

functools

class crt1.**CRT**

The Chinese Remainder Theorem method for solving a system of linear congruences.

Notes:

This class has no __init__ method. As such, there are no arguments required to construct an instance.

Without class or instance variables, all objects of this class are stateless.

Args: None

Attributes:

None

Example:

An example is provided in the main guard corresponding to the system: $x \equiv 2 \mod 3 x \equiv 3 \mod 5 x \equiv 2 \mod 7$

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Contents:

Suppose n1, ..., nk are positive integers that are pairwise coprime. Then, for any given sequence of integers a1, ..., ak, there exists an integer x solving the following system of simultaneous congruences. $\mathbf{x} \equiv \mathtt{a1} \bmod \mathtt{n1} \mathbf{x} \equiv \mathtt{a2} \bmod \mathtt{n2} \dots \mathbf{x} \equiv \mathtt{ak} \bmod \mathtt{nk}$ A full explanation of the theorem can be found at https://en.wikipedia.org /wiki/Chinese_remainder_theorem Attributes: None Dependencies: functools class crt1.CRT The Chinese Remainder Theorem method for solving a system of linear congruences. Notes This class has no __init__ method. As such, there are no arguments required to construct an instance. Without class or instance variables, all objects of this class are stateless Args: None Attributes None Example: An example is provided in the main guard corresponding to the system: $x \equiv 2 \mod 3$ $x \equiv 3 \mod 5$ $x \equiv 2 \mod 7$ $CRT.chinese_remainder(n, a)$ Use the existence construction form of the CRT to compute the solution. First, calculate the product of all the modulos (b1, n2, ..., nk) as prod For each i, calculate prod/n_i as p Sum up each ai * the multiplicative inverse of ni mod p Args: n: a list of modulos (n1, n2, ..., nk) a: a list of congruences (a1, a2, ..., ak) Returns: The smallest integer solution to the system of congruence equations defined by a and n. Error conditions: $\label{eq:whenlen(n) == len(a), a solution always exists. When len(a) > len(n), any additional a's are ignored. When len(n) > len(a), behavior is deterministic but erroneous.$

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Chapter 10: Visiting Jupyter

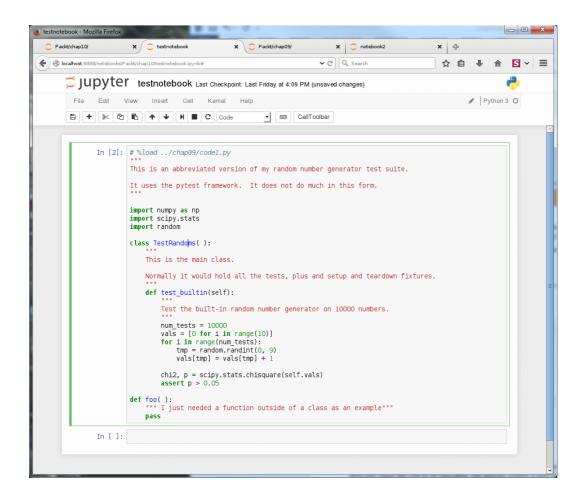
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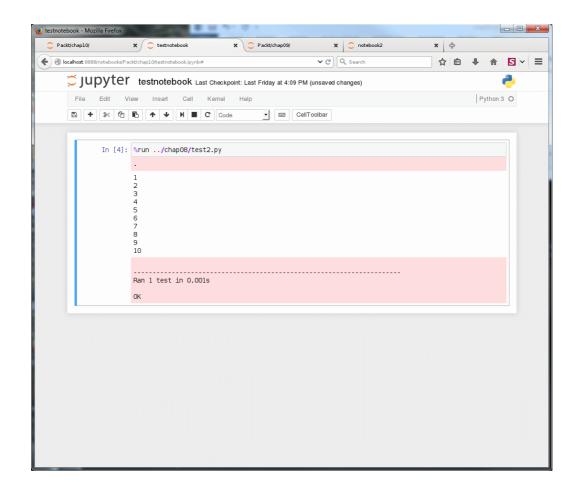
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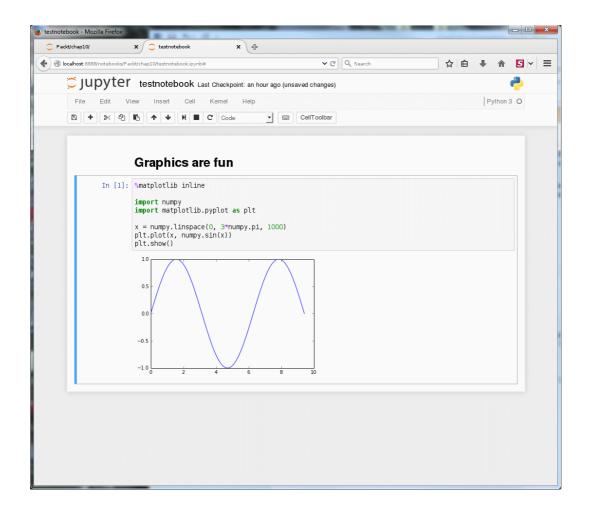
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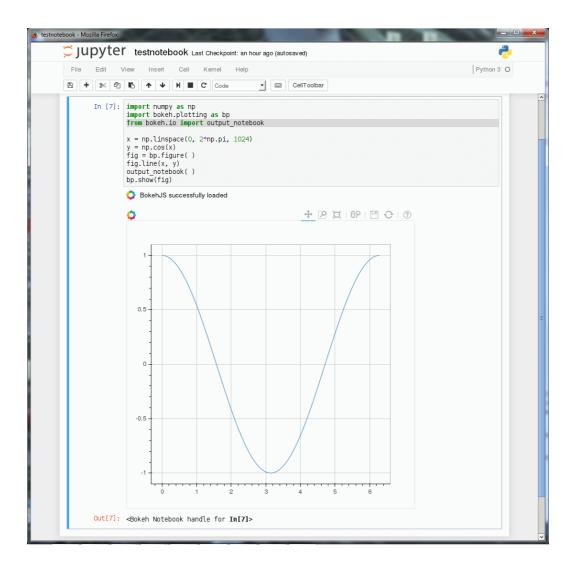
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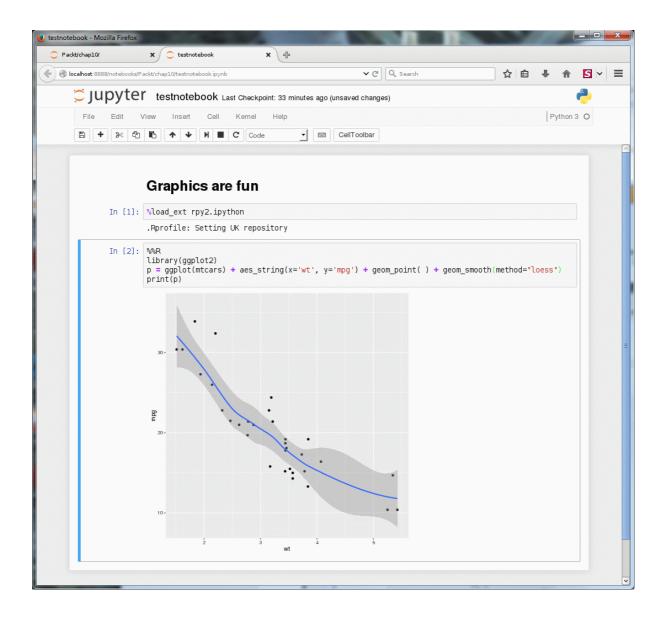


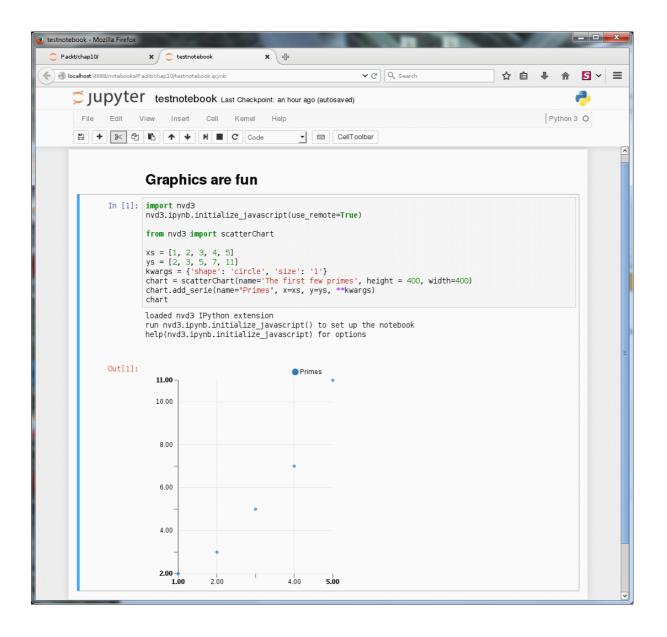


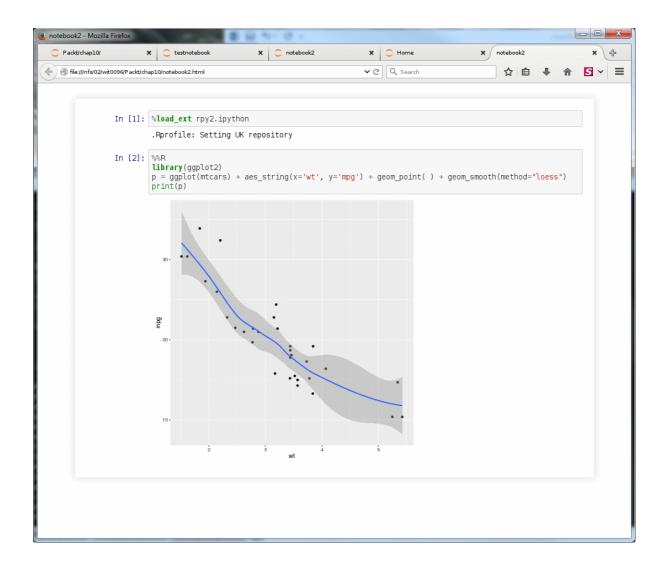
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	10		
In [3]:	<pre>print("Something is missing)</pre>		
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In []:	<pre>import time for i in range(10): print(i) time.sleep(1)</pre>		
	Here is an example of Ma	arkdown	
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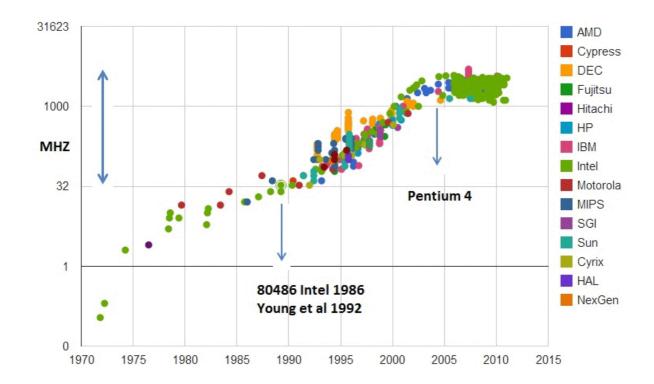












Chapter 11: Into the Future

