

SECTION 20: ADVANCED PYTHON PROJECTS AND DATA STRUCTURES - 41 minutes, 7 parts

4/7 Advanced Dictionaries

- -> **methods in dictionaries and dictionary comprehensions**
 - -> he creates a dictionary with two values
 - -> lists can be constructed using list comprehension
 - -> this is less commonly used
 - -> he writes an example of this
 - -> this has a key and value
 - -> this implements tuple unpacking
- -> **iterating over keys, values, items**
 - -> **entire dictionaries can be constructed using list comprehension**
 - -> **in one line of code {}**
 - -> dictionary comprehensions are not as common as list comprehensions
 - -> he creates a loop which iterates through values and returns a loop
 - -> this uses `.iterkeys()`
 - -> `.viewitems()` can also be used
 - -> and similarly, `viewvalues()`
 - -> this was dictionary comprehension

The screenshot shows a web browser displaying a page from nbviewer.org. The page title is "Advanced Dictionaries". Below the title, there is a paragraph of text: "Unlike some of the other Data Structures we've worked with, most of the really useful methods available to us in Dictionaries have already been explored throughout this course. Here we will touch on just a few more for good measure:". Below this text, there are two code blocks. The first code block is labeled "In [17]:" and contains the code `d = {'k1':1, 'k2':2}`. The second code block is labeled "In [12]:" and contains the code `{x:x**2 for x in range(10)}`. Below the second code block, there is an output line labeled "Out[12]:" showing the result: `{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81}`.

The screenshot shows a Jupyter Notebook interface. The notebook title is "Lecture (unsaved changes)". The interface includes a menu bar with "File", "Edit", "View", "Insert", "Cell", "Kernel", and "Help". Below the menu bar, there is a toolbar with various icons. The main content area of the notebook displays the same code blocks as the previous screenshot. The first code block is labeled "In [1]:" and contains the code `d = {'k1':1, 'k2':2}`. The second code block is labeled "In [2]:" and contains the code `{x:x**2 for x in range(10)}`. Below the second code block, there is an output line labeled "Out[2]:" showing the result: `{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81}`. Below the output line, there is an empty code block labeled "In []:".