GUIs

p209

from tkinter import *

Based on Tk

widget window gadget

named attributes, most w/ defaults

Geometry management

Toplevel + Frame

3 types of managers
- grid
- pack
- place

new_widget = WidgetCreation(parent, attr1 = 3, attr2 = 4)

enter event

text widget for text

Also available: QT, GTK

Regular Expressions

p225

import re

look_for = re.compile(r"string")

if look_for.search(line):
...

(?P<pattern_name>\d\d\d)
area code

r.group('area_code')

substitutions

p = r'the the'

pc = re.compile(p)

pc.sub(r'the', string)

in perl

string =~ s/pc/substring/

compiled part

a pattern <?P<name>

Packages

p234

Package = directory structure

module = file

Flat is better than nested

Data Types as Objects

type(x)

isinstance(x, C)

issubclass(x, C

Java stricter rules for inher.

OO features

__str__(self):
return pretty string

modify type so things get recorded

EAFP easier to ask forgiveness than permission

try:
...
except TypeError:
pass

vs. LBYL look before you leap

if isinstance(thing, list):
...

@abstractmethod
@abstractproperty
> gentleman's agreement

Unit tests

import unittest

class CircleTest(unittest.TestCase):
def setup(self):
self.a = 3
def test_func(self):
self.a * 3
func(3)
self.assertEqual(self.a, func)

if __name__ == '__main__'
unittest.main()

From Python 2 to 3

2x code needs Δ

✓ w/ -3 flag

3to2.py to go other way

	difs
raw_input()	input()
print x	print(x)
str, unicode	bytes str unicode
1L	1
try: except Exception, e:	try: except Exception
StandardError	Exception
1/2 → 0	1/2 → .5 1//2 → 0
dict.keys() return list	dict.keys() returns views

Using Python Libraries

look if it may be there

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Strings	Datatypes	#
string	datetime	number
re	Calendar	math
struct	collections	cmath
difflib	arrays	decimal
textwrap	queue	fractions
	copy	random
	pprint	functools
		operator

Files	OS	Network
os.path	os	socket
fileinput	io	email
filecmp	time	Json
tempfile	argparse	html.parser
glob	logging	cgi
shutil	getpass	urllib
pickle	platform	http.server
zlib, turtle	ctypes	
CSV	subprocess	

inspect - like objects

PyPi.python.org for more