

Recursion

Base case: the function returns a value without making a recursive call

Change of state: the argument passed to the recursive call must move towards the base case.

Self-call: the function must call itself

Visualization

Stack frames

fractals

Classes and objects

--init--(self,...): initializer

class: a blueprint for creating objects

object: a specific realization of a class

attributes: variables that belong to an object

--str--(self): returns a string representation

methods: functions that belong to a class

self parameter

Operator

--add--: +

--sub--: -

--eq--: =

mutability

copying

shallow copy
deep copy

widget config

widgets

create the object
specify attributes
place it

Thinter (GUI)

frame

entry

label

button

Window

frame
widget

layout

callback

message boxes

Windows & dialogs — toplevel

file dialogs