

Python Debugger Cheatsheet



Getting started

import pdb;pdb.set_trace() start pdb from within a script

breakpoint() start pdb from within a script (since Python 3.7)

python -m pdb <file.py> start pdb from the commandline

Basics

h(elp) print available commands

h(elp) command print help about command

q(quit) quit debugger

Examine

 $\mathbf{p(rint)}$ expr print the value of expr

pp expr pretty-print the value of expr

 $\mathbf{w}(\mathbf{here})$ print current position (including stack trace)

l(ist) list 11 lines of code around the current line

l(ist) first, last list from first to last line number

a(rgs) print the args of the current function

Miscellaneous

!stmt treat stmt as a Python statement instead of a pdb

command

alias map stmt map Python statement as a map command

alias $map < arg1 \dots > stmt$ pass arguments to Python statement.

stmt includes $\%1, \%2, \dots$ literals.

Save pdb commands to local <./.pdbrc> file for repetitive access.

Movement

<ENTER> repeat the last command

n(ext) execute the current statement (step over)

s(tep) execute and step into function

r(eturn) continue execution until the current function returnsc(ontinue) continue execution until a breakpoint is encountered

 $\mathbf{u}(\mathbf{p})$ move one level up in the stack trace

d(own) move one level down in the stack trace

until continue execution until the end of a loop or until the set line

j(ump) set the next line that will be executed (local frame only)

Breakpoints

b(reak) show all breakpoints with its number

b(reak) lineno set a breakpoint at lineno

b(reak) *lineno*, *cond* stop at breakpoint *lineno* if Python condition *cond* holds, e.g.

i = 42

b(reak) file:lineno set a breakpoint in file at lineno

b(reak) func set a breakpoint at the first line of a func

tbreak *lineno* set a temporary breakpoint at *lineno*, i.e. is removed when

first hit

 $\begin{array}{ll} \textbf{disable } \textit{number} & \textbf{disable breakpoint } \textit{number} \\ \textbf{enable } \textit{number} & \textbf{enable breakpoint } \textit{number} \\ \textbf{clear } \textit{number} & \textbf{delete breakpoint } \textit{number} \end{array}$

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See ${\tt https://github.com/nblock/pdb-cheatsheet}\ \ {\tt for}\ \ {\tt more}\ \ {\tt information}.$