

Forritunarmálið Python

Day 10

Scripts

Hjalti Magnússon

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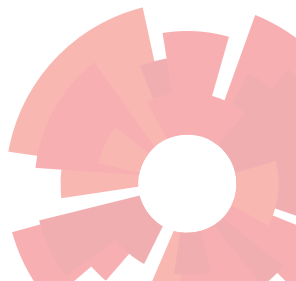


Scripts



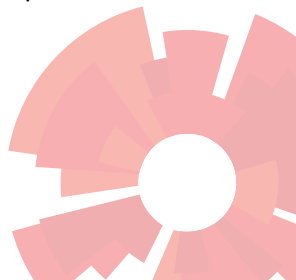
Running Python code

- Up to now we have just been writing functions in Python
- Real world programs are run either in a
 - command line, then called a script
 - graphical user interface (GUI)



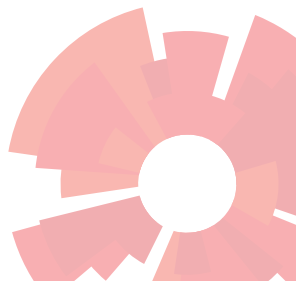
Interacting with the user

- Two common ways of interacting with the user
 - Prompting the user and reading from standard input
 - Command line parameters
- Python has good support for command line parameters
 - `argparse`



Traditions

- Traditionally Python uses Unix style command line arguments
- Programs have
 - Arguments (can be optional)
 - Options
 - Optional arguments
 - Usually have “sane” defaults



Options

- Options are usually denoted with `-o` (short form) or `--long-option` (long form)
- Options can take no parameters
 - In which case they are called flags
- Options can also take parameters
 - In short form:
`-o param another_param "param with spaces"`
 - In short form: `--long-option param another_param "param with spaces"`



An example

```
git [--version] [--help] [-C <path>]
  [-c <name>=<value>] [--exec-path[=<path>]]
  [--html-path] [--man-path] [--info-path]
  [-p|--paginate|--no-pager]
  [--no-replace-objects] [--bare]
  [--git-dir=<path>] [--work-tree=<path>]
  [--namespace=<name>] [--super-prefix=<path>]
  <command> [<args>]
```

Problem

CSV program that can

- Print out a CSV file
- Limit columns and rows
- Reverse the rows
- Number rows
- Sum columns
- Aggregate rows

