NPRG065: Progamming in Python

Practicals 10

MATEMATICKO-FYZIKÁLNÍ
FAKULTA
Univerzita Karlova

Department of
Distributed and
Dependable
Systems

1. Extend the Logging library from the previous practicals to use the abc module:
   - Define the Printer and Formatter "interfaces"
   - The particular implementations implement these interfaces
2. Change the level in the Logger class to be an enum
   - Define the Level enum with values corresponding to the severity of messages: SEVERE, WARNING, INFO, FINE, FINER, FINEST
   - The log(level, msg) method prints messages with the same or more severe level

3. Implement an extensible text processor
   - It reads from the std input and writes to the std output
   - It takes a list of command-line arguments with names of plugins to be applied onto the text
   - The plugins implement an "interface" with the following methods:
     - `process(text)` – returns the processed text
     - `name()` – a read-only property representing the name of the plugin
   - Implement several plugins such as `toupper, tolower, capitalize, …`

4. Create an extensible shell, i.e., an interactive program performing the following commands:
   - `help`
     - A built-in command (the only one)
     - It prints out the list of all available commands
   - Other commands – classes implementing an "interface":
     - The name of the command
     - Help (for the help command)
     - Execution of the command (taking any number of arguments)