CSCI 233: Python Notes 1

data

- identifier
- variable
- assignment
- literal
- type
  - simple/scalar
    * integer `int`
    * floating-point `float`
    * Boolean `bool`
  - composite
    * string `str`
      · *escape*
    * `list`
    * `tuple`
    operations:
    * *subscript*
    * *slice*
    * `len()`

expressions

- evaluation
- operators (decreasing precendence)
  - arithmetic
    ```
    **
    - (unary)
    * / // %
    + -
    ```
  - relational
    ```
    == != > >= < <=
    ```
  - logical (Boolean)
    ```
    not
    and
    or
    ```
- type promotion/conversion/coercion
- lexicographic order
- function call (invocation)

statements

- assignment
- `print`
- `pass`
- *block*
- conditional

  ```
  if boolean-expression :
      block
  elif boolean-expression :
      block
  else:
      block
  ```

- while loop

  ```
  while boolean-expression :
      block
  ```

- `break`

functions

- definition

  ```
  def name (formal-parameters ):
      block
  ```

- `return`
- *scope*
- *local identifier (variable)*
- function definition vs. invocation, activation
- formal parameters, actual parameters
- doc string

misc.

- immutable vs. mutable types
- equality (`==`) vs. identity (`is`)