

# Strings

- Stored as an array of characters (accessible using the same slicing and indexing syntax as lists)
- Immutable: cannot modify elements at a given index
  - Example: `s = 'abc'`; cannot do `s[0] = 'd'` or `s.append('x')`
- Good for serializing/flattening data structures
- May be the most commonly used data structure - all code, text, etc. is just strings of characters at the end of the day

# Integers

- Integers are just bytes - zeros and ones
- Example:  $5 = 0b101$
- Can see binary representation of a number  $x$  using `bin(x)`
- Use case: finding duplicated number using XOR (may see in section 7: LeetCode practice)
- Bitwise operations can be very powerful but also sometimes difficult to understand and solutions can be difficult to come up with