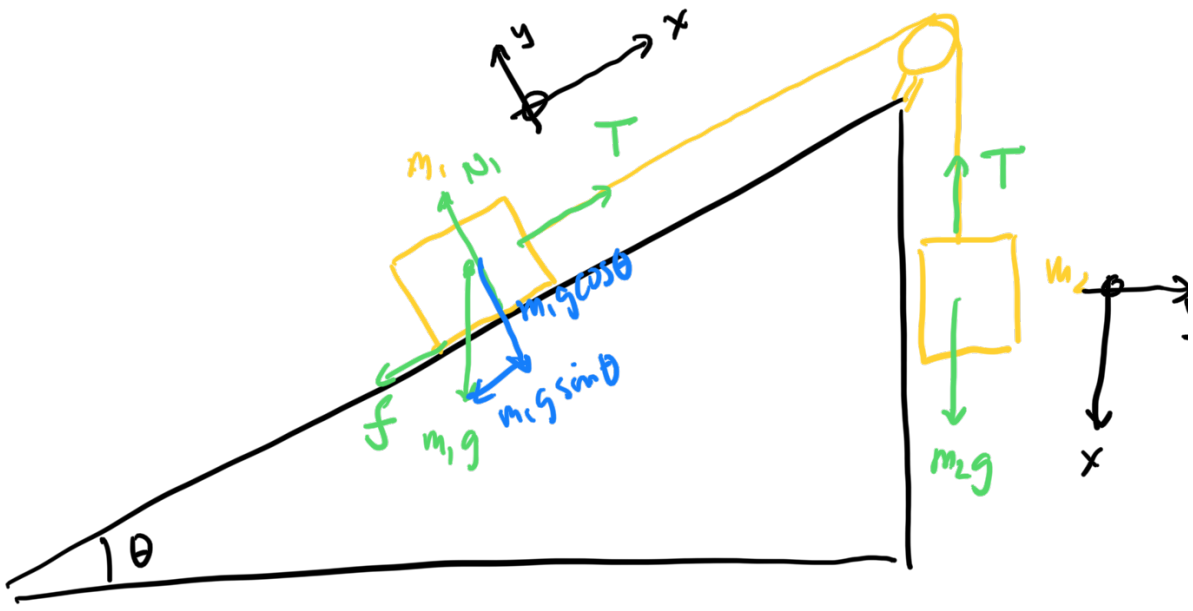
Two Blocks with Friction.



$$N_1 - m_1 g\cos\theta = m_1 a_{1y} = 0$$

$$T = f - m_1 g\sin\theta = m_1 a_{1x}$$

(− $m_1 g$, + left

$$m_2 g - T = m_2 a_{2x}$$

$$N_1 = m_1 g\cdot\cos\theta \Rightarrow f = \mu m_1 g\cos\theta$$

$$T \mp \mu m_1 g\cos\theta - m_1 g\sin\theta = m_1 a$$

$$+ \quad m_2 g - T = m_2 a$$

$$\left(\frac{m_2 \mp \mu m_1 \cos\theta - m_1 \sin\theta}{m_1 + m_2}\right) g = a$$

μ_s^{max} :

$$a = \left(\frac{m_2 \mp \mu_s^{max} m_1 \cos\theta - m_1 \sin\theta}{m_1 + m_2}\right)$$

If $a_- > 0$ and $a_+ < 0$:

then motion!

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① input from user :

i) angle and character ✓

(ii) around text character ✓

② Create output string.

Programming Languages.

1. variables. ← nouns
2. loops
3. if... then --- else
4. classes/objects.
5. methods / functions ← verbs

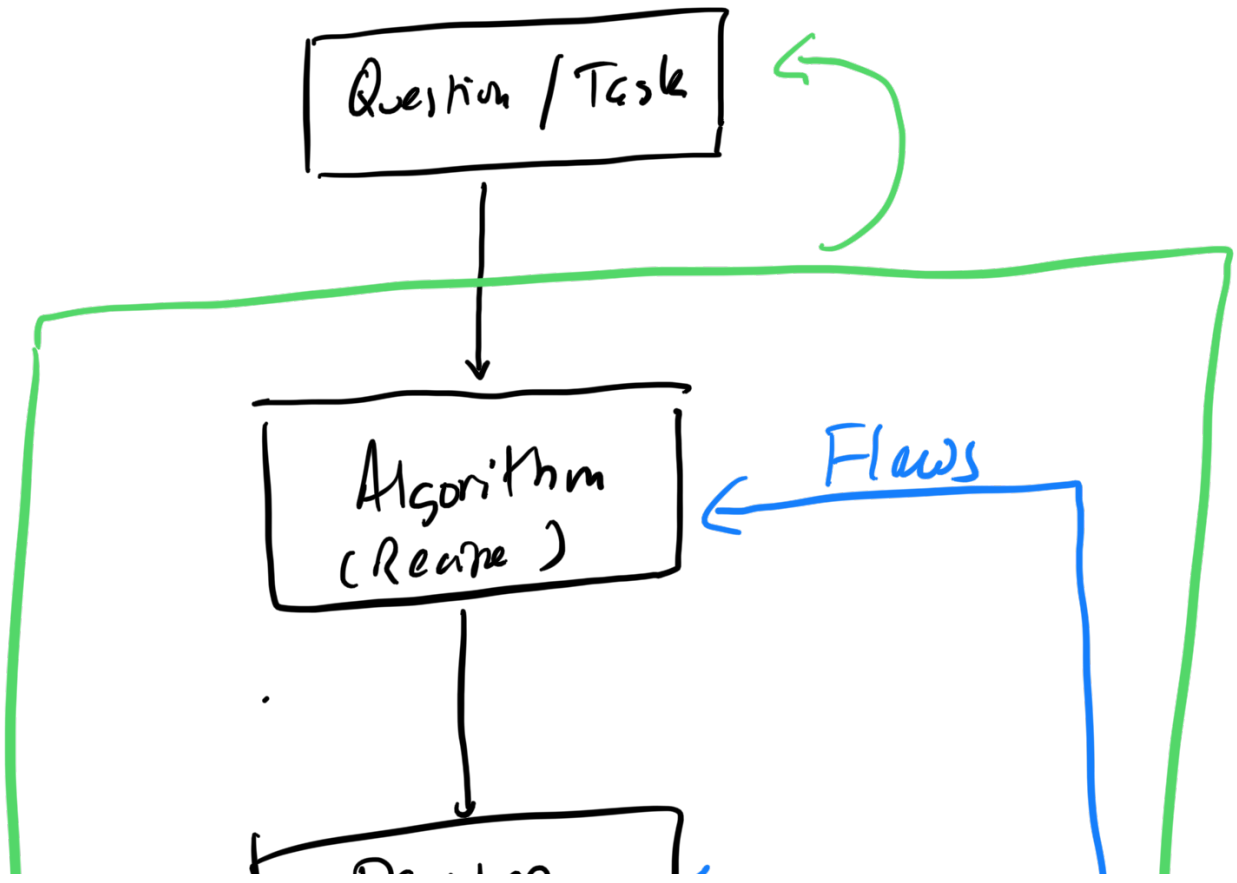
run

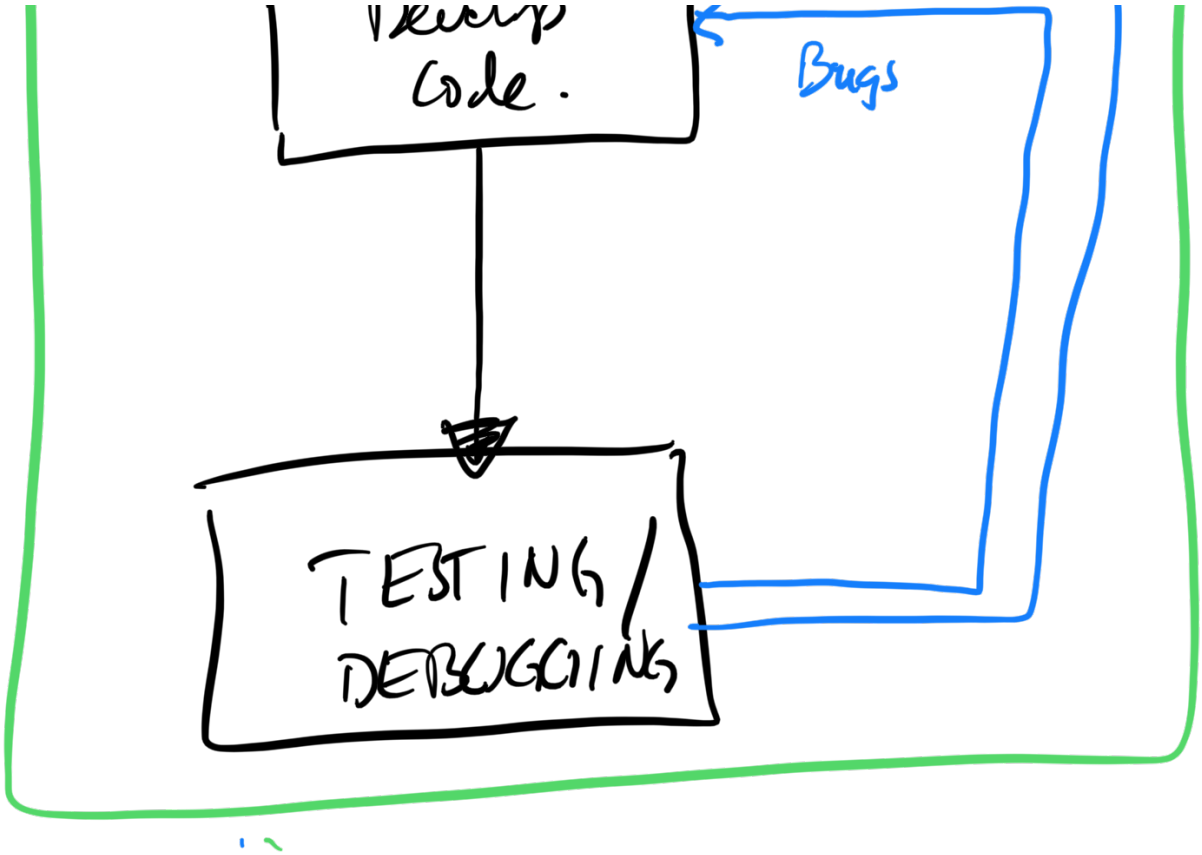
→ grammar

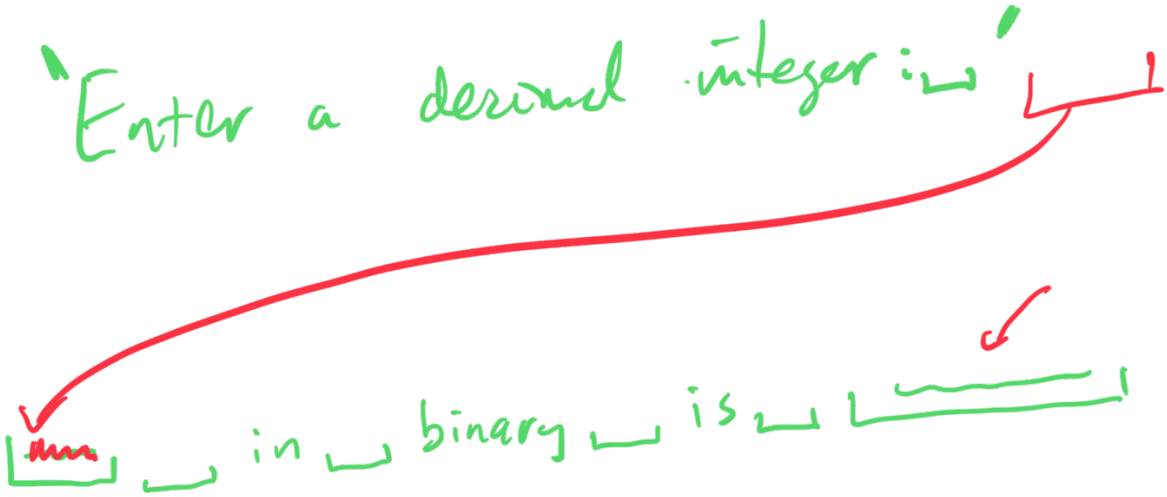
SYNTAX → spelling
→ alphabet

$a = c \sqcup + \sqcup d \sqcup + \sqcup e$

$a = c+d+e$







① get the decimal integer

② use string formatting to

(c) output the # in decimal and binary.

Data Types.

integer (ex. 3, -1, ...)

float (ex. 2.35, 6.92)

character (ex. 'a')

string (ex. 'girl', 'boy', ...)

Python → dynamically typed)

decimal = input('—— ')

String! '10'

0 '10' → 10

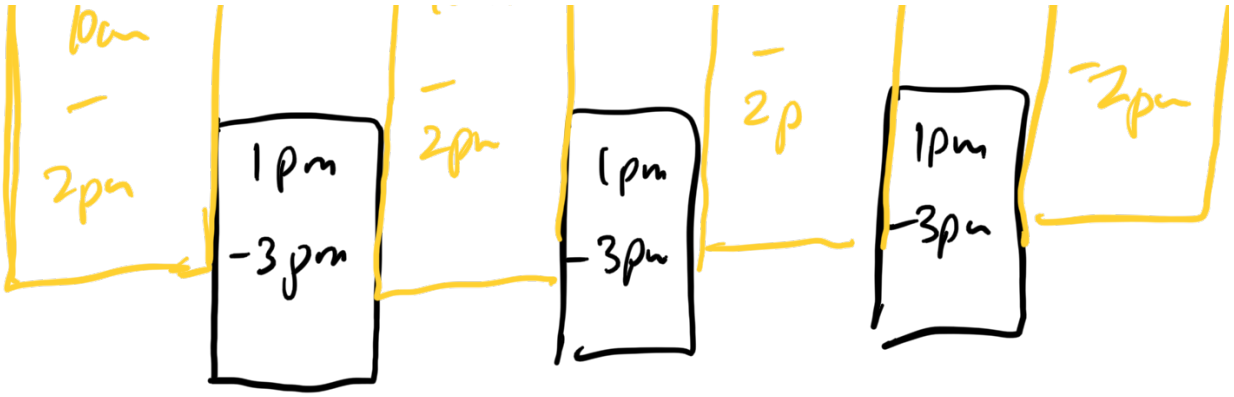
int('10') = 10

.format(int(decimal))

'{0:b}'

binary → string

S M T W T F S



12:30 pm - 2 pm T/Th