$$3^5 \Rightarrow 3 \times 3 \times 3 \times 3 \times 3$$

$$\Rightarrow 3 \times 3^4$$

$$\Rightarrow 3 \times 3 \times 3^3$$

$$3 \times 3 \times 3 \times 3^2$$

$$3 \times 3 \times 3 \times 3 \times 3^1$$

$$3 \times 3 \times 3 \times 3 \times 3 \times 3^0$$

$$100^0 = 1$$

$$10000^0 = 1$$

$$3^0 = 1$$

$pow(base, exp)$

$$if \quad exp == 0$$

$$return \quad 1$$

$$else:$$

$$return \quad base * pow(base, exp-1)$$

$$3 * \boxed{27 \quad 3 * \atop 3 \times pow(3,3)}$$

3^5

3.4

3×81

$= 243$

81

$273 \times pow(3,2)$

$3 \times pow(3,1)$

$3 \times pow(3,0)$

$$5^3 \xleftarrow{} 125$$

$$\Rightarrow 5 \times 5^2$$

$$\Rightarrow 5 \times 5^{\boxed{1}} \quad 25$$

$$5 \times \boxed{5^1}$$

$$5 \times \boxed{5^0} = 1$$

$$5$$

$$5 \times 5^2$$

$$5 3 \xleftarrow{} exp \\ = base \times \boxed{\dfrac{base^{exp-1}}{1}}$$

$$base$$

$$base \times base^{(exp-1)}$$

$$exp-2$$

$base^n$

$base^0$ → 1

$$\underline{pow\ (base,\ exp)} \quad (5,3) \quad (5,2) \quad (5,1) \quad (5,0)$$

$\{$ if $exp == 0:$

return 1

else

return $base \times pow\ (base,\ exp-1)$

$5 \times pow(5,2) = 25$

$\rightarrow 25$

$5 \times pow(5,1)$

5

$5 \times pow(5,0)$

1

5^3

125

python

python

len(str): 0

thon 'p'

non 'y'

on 't'

'n' → 0

notype

def reverse(str):   run
                      n_
  if len(str) == 0
    return str

  else

    return reverse(str[1:]) + str[0]

reve('un') + 'r'

'un' n

rev('n') + 'u' ncu

rev('') + 'n'
None

→ s madam ← ←

malayalam

noon
↓

M A D B M

→ 'a' ←

→ M A L A Y A C A M ← M → m ←

→ 'i' ←

M A D B M →

abc - 'b'
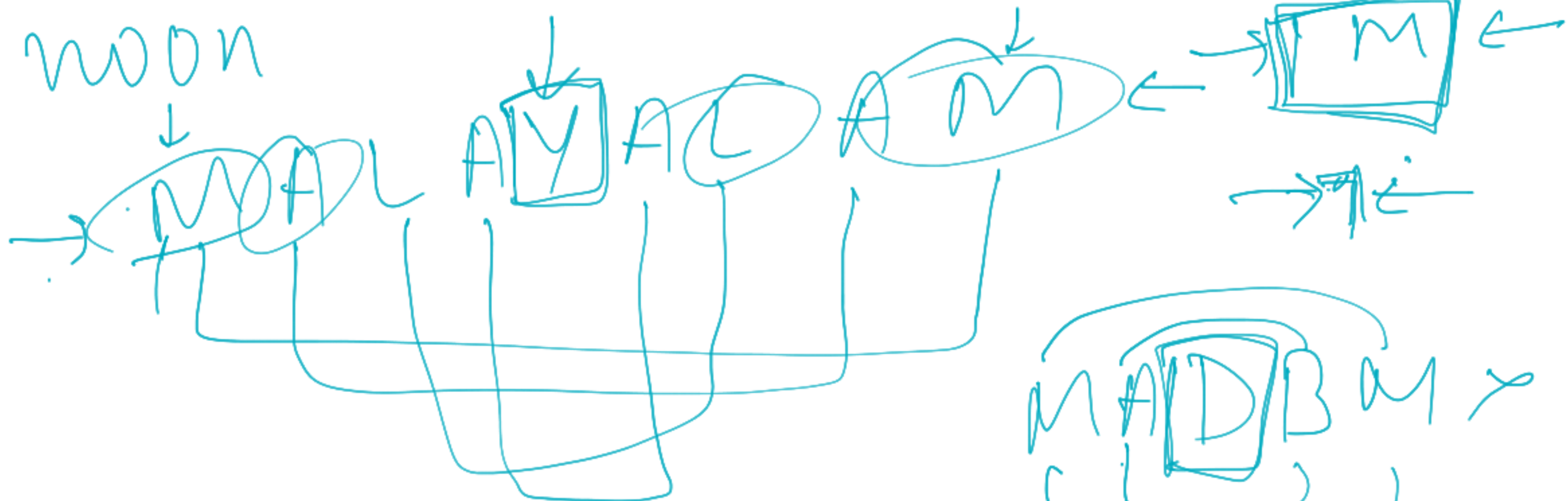
M A L Y A Y A L A M

if len (str) == 1
    palindrom

else:
    str[0] == str[-1]
    palin (str[1:-1])

$$4 \times 3 \Rightarrow 4 + 4 + 4$$

$$7 \times 5 \Rightarrow 7 + 7 + 7 + 7 + 7$$

$$a \times b \Rightarrow a + a \ldots b \text{ time}$$

$$\overset{a}{5} \times \overset{b}{4} \Rightarrow 5 + 5 + 5 + 4$$

$$4 \times 3 = 4 + 4 \times 2 \Rightarrow 4 + 4 + 4 \times 1$$