Lists-2

✓ 1.   Updating data

✓ 2.   Quizzes

✓ 3.   Problem Solving

       Q1

       Q2

       Q3

✓   Q4 ⟹ Finding min.

=) How to update the date in the list?

$$\begin{array}{cccccc} 0 & 1 & 2 & \boxed{3} & 4 & 5 \end{array}$$

runs = [0, 1, 99, [98], 76, 54]   6 matches

200

[0, 1, 99, 200, 76, 54]

```
runs.pop(3)

runs.insert(3, 200)
```

$$\# \quad \begin{array}{ccccc} 0 & 1 & 2 & 3 & 4 \end{array}$$
[0, 1, 99, 76, 54]

$$\# \quad \begin{array}{cccccc} 0 & 1 & 2 & 3 & 4 & 5 \end{array}$$
[0, 1, 99, 200, 76, 54]

runs [3] = 200   =) Mutability => val can
                                                 be changed

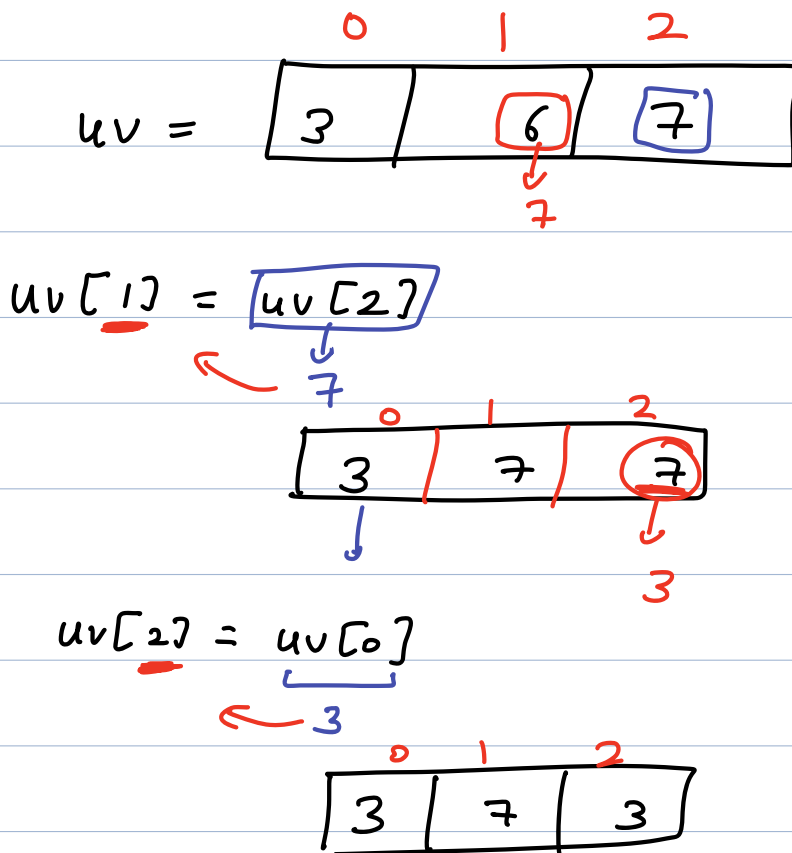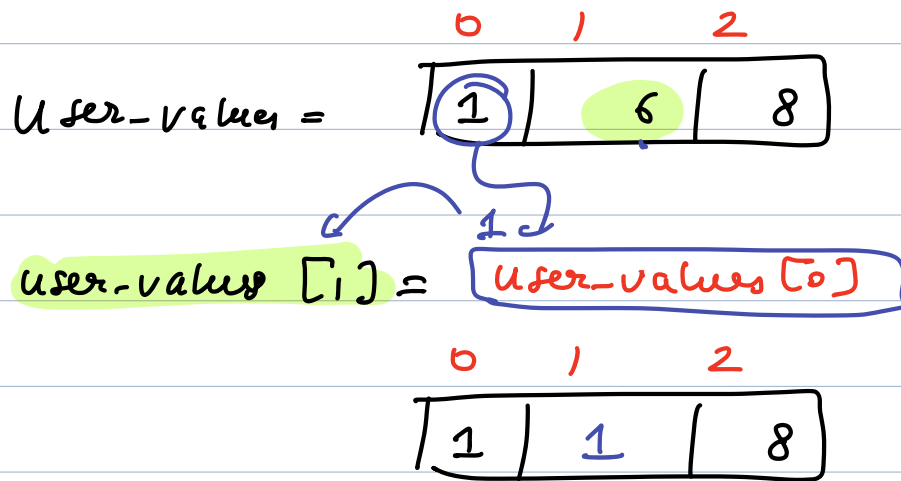Assignment operator.   Lists are mutable

                                              Will change
                                              in the
                                              intermediate
Multiple assignment

a, b = 3, 2   a : 3

                          b : 2

$$\begin{array}{cccccc} 0 & 1 & 2 & 3 & 4 & 5 \end{array}$$

runs = [0, 1, 99, 98, 76, 54]

runs [3], runs[5] = 200, 55

0   1   2

User-values = | 1 | 6 | 8 |

user-values [1] = user_values [0]

                                    0   1   2

                       | 1 | 1 | 8 |

- -

                       0   1   2

uv = | 3 | 6 | 7 |
                               ↓
                               7

uv [1] = uv [2]
                ↓
                7

                       0   1   2
              | 3 | 7 | 7 |
                ↓   ↓
                               3

uv [2] = uv [0]
        ← 3

                       0   1   2
              | 3 | 7 | 3 |

- -

<u>Return the index</u>

Q1.   Find the 1st match (index) in which Sachin
      scored 99 runs.

index ———→ (0)(1)(2) (3) (4)(5) (6)(7)

      runs = [0, 1, 55, 67, 99, 120, 200, 99]
               X   X   X   X   ✓

      99   8

                                         range(8)

                                    [0,1,2,3,4,5,6,7]

space ↑   target = 99 ↑
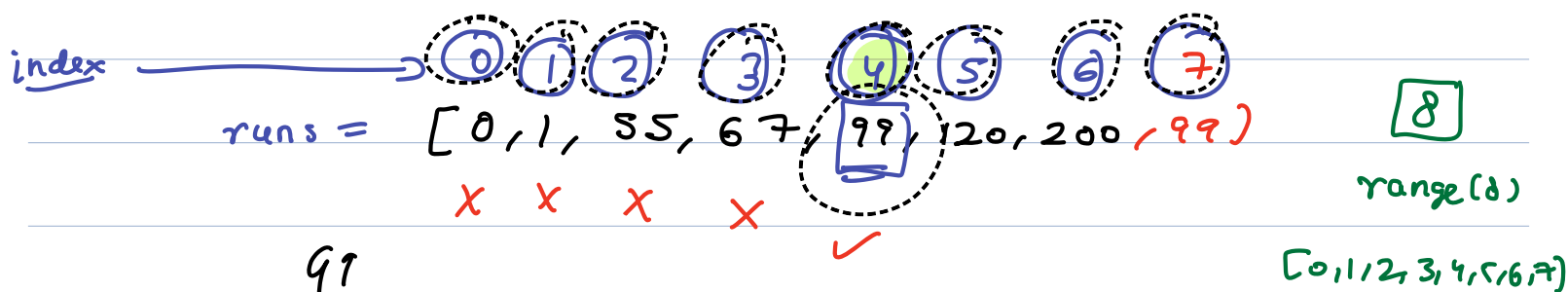
```python
def    search ( runs , (target) = 99 ):
        # Write.
        for ( i )  in  range ( len (runs)) :    =) [0,1,2,---7)
            if   runs[i] == target :
                return  i

    return "NOT FOUND!"
```

---

runs =
```
      0  1   2    3   4   5   6   7    8    9   10
runs = [ 0, 1, 59, 96, 69, 67, 68,120, 98, 109, 89 ]    Not found
```

99

X X X X X x x x x x x

not found

---

7 mins break

5 mins + 2 ⟶ 62.

If there are multiple

99s,

count in how many

Sachin scored 99

Q3.   Find max. runs scored by Sachin.

[0, 99, 1, 99, 23, 99, 98, 100, 200, 99]

a   b

3, 5   Max of 2 variables.

a   b

-3, -5

$maxi = \boxed{None}$ ==> nothing was max
                              initially.

if   a > b :

    $maxi = a$

else :

    $maxi = b$

a   b   c

3, 7, 5   When can a be max?

✓ $a > b$ and $a > c$

100 pts   200 pts   100 pts   When can b be max?
✗   ✓ $b > a$ and $b > c$

100, 150, 200   When can c be max?
                           If a & b are not
                                    the max.

maxi = None

if   a >= b and   a >= c:

    maxi = a

elif   b >= a and b >= c:

    maxi = b

else:

    maxi = c

5, 5, 4

maxi = 0   runs = [ ]

maxi = 0   runs = [0],   YES

maxi = 25   runs = [0, (25)]   YES

Is it better
than what
we have
till now?

maxi = 25   runs = [0, 25, 17]   → NO

maxi = (25)   runs = [0, 25, 17, 19] → No

maxi = 56   runs = [0, 25, 17, 19, 56]   → YES

maxi = 56   runs = [0, 25, 17, 19, 56, 0]   → No.

Now, can you think of the logic to find the
minimum number ?