## Gas Station

For this problem we need to find a starting gas stateon encler where we can travel the full circuit ence clockwise, or return - 1 if impossible

Loy Observations:

1. If total gas a total cost - impossible

· If sum (gas ) < sum (cost), no solution exists.

2. Greedy strategy:

· Traverse stations, track current fuel belance.

If balance becomes negative, reset starting point to next stateon and sent balance to O.

· This works because if you cannot reach station in from stast, any earlier station also fails.

Algorithm:

1. Compute total gas difference: total += gas [i] -cost [i]
2. Track tank for current patt.

3. When tank co:

· Jet start = 1+1

· Peset tank = 0

4. After logs:

· If total >=0 return start

- Else seturn -1.

Complexity:

· Terne: O(u) (single pass)

- Space: O(1)