```
Day-17 : Leercode: 2033 Minimum Operations to Make a Uni-
                                    Value - Girid.
                                     goal is to make every value on guid some and we have to
     guid = [ [ 0, 4] , [ 6, 8] , x=2 )
  Output = 4
                                  Heterin minimum no. of operations.
(ode !
    Class Colinton.
           det min Operations (self, guid)
                total = 0
                 for now in guid?
                     for n in how: 0 this
                         if nix "= guid lostos i, x:
                            Herun - 1
                  num: [n for how in guid for n in how]
                   nums. soull)
                   puefix = 0
                   Hes = float ("inf") " 100
                   for e in range (len(nums)):
                       cost-left = nunstig * i - prefix
                        cost rught = total - prefix - (nums[i] + (en (nums)-i))
                        operations = (cost -left + cost -right) 1/x
                        445 = min ( Hes, operations)
                        puctix + = numici'
                   Actuany Hes
                                       (1500 * fol plat
                   1600 = 22
                                      Tan Intelligated
                                     - 1 - passage passagest
                                     ( for a some of ) of
                                      See Labour 1
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SDE'. Repeat and Missing Number
  · Bunt force -
     · we will sun aloop (say i) from 1 to 10
     · For each enteger, i we will count occurrence in the given ossery using lines,
    · we will store those two elements that those the occurrence of a and o
     finally we will yething.
         Code !
               def Find missing Repeating Number (0: Lint])-
                       n = lentas
                       Hepeoting, missing = -1, -1
                       for i in sunge (1, 7+1):
                             cnt=0
                             for 1 in range (n):
                                  if ali] == i:
                                     cnf +=1
                              if cnt = = 4:
                                   Mepcoting = 1
                              clseif ent == 0 :
                                  missing = i
                             if theperting !=- I and missing !=-1 !
                             bycok
                          Herwan [ 4 epcoting , missing]
· Better : ( Hoshing)
         def find ----
             n= len(a)
             -hosh = [0] * (771)
                                            T'C = O(N)
             for i in sunge (n):
                                               S.C = O(N)
                  -hash[ali]] +=1
             Hepering, musing = -1,-1
             for i in monge 11, nex):
                   if thosphers == 2!
                       Hepcoting = i
                    elseif -moshlet == 0
                        missing = i
```

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. opermal Sol7
             ( Using Moths)
            Find Missing ---
              n=lenca)
             II find the Sung
              SN= (n+ (n+1)/12
             San=(n+(n+1)+ (2+n+1)/16
             # Colculate Sond S2
                                            TIL DOING
               8,52:0.0
                                      8.6 3 0(1)
               for i in monge(n):
                   S+=9[1]
                    SZ += ary * alij | 1
               Vall = S-SN
                Val2 = SZ - SZN
                Vala: Vala // val 1
                                       (forthed : rea) species policy
                x = (val + vala)//2
                Y = X-Val1
                                          I'm the Topped
                newy LX, Y)
          as a my years purposed as it is clayed a society as a self
                   Capital of topper time them of 1901, I when
                          (1,000) trees bridge good
                                                     (Minitude : 3)
                                   ten earl
                           England hanges qual
sould spece in a ret
 Court of grant of 12000
                               Property on I harage good
                                  ( depend to graphing ) whose
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```
find the duplicate in an array of 10+1 integers.
  -> Assuming thou is one xuio
  art = [1, 3, 4, 2, 2]
   output: 2.
  Using Sowing
        if (arty == arrlitt] f
             Hetery arreit;
· Using furguency
          n=lentons
          facq = 101 * (9-1)
          for i'm mange
                 if fred Forsted == 0;
                      freglosslij+=1
                  cise:
  neturn on ly
            Howing 0
def find duplicate ( nums: list Lints) -> int
        slow = number
        fast = numboj
         while Truc:
               slow - nums [slow]
               fast = nums[nums[fost]]
               if slow = = fost:
                    buck
          fast- numsto]
           while stow ! = fost :
                 Slow : nums [slow]
                 fost = numel fost
           yerwing slow
```