

20 Oct

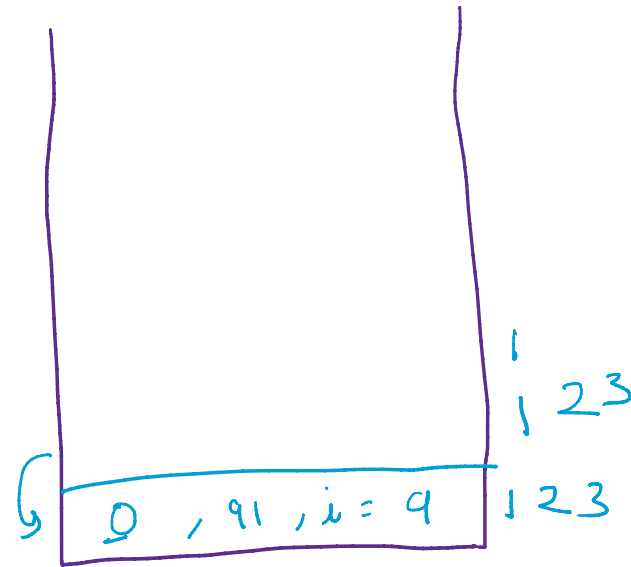
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In-Class BT:

Count Digits:-

$N = 2$
 $[F, F, F, \cancel{F}, F, F, F, F, F, F]$

```
public static int uniqueDigits(int n, boolean[] visited, int curr){
    1 if(n==curr) return 1;
    int res=1;
    2 for(int i=(curr==0?1:0); i<=9; i++){
        3 if(visited[i]) continue;
        4 visited[i]=true;
        5 res+=uniqueDigits(n, visited, curr+1);
        6 visited[i]=false;
    }
    return res;
}
```



$N = 0$

| | |
|---|---|
| 0 | 1 |
| 0 | 9 |
| 1 | 9 |
| 2 | 9 |
| 3 | 9 |
| 4 | 9 |
| 5 | 9 |
| 6 | 9 |
| 7 | 9 |
| 8 | 9 |
| 9 | 9 |

91

2, 0
N,

1 2 3

Max String :-

666 1 2 3 4
66 4 3 2 1

1 2 3 4 5 6 =>
3

2 1 3 4 5 6
3 2 1 4 5 6
4 2 3 1 5 6
5 2 3 4 1 6
6 2 3 4 5 1

Triplets :- $N = 1 \Rightarrow 111$

Triplets :- $n=1 \Rightarrow 1 \ 1 \ 1$

$n=2 \Rightarrow \underline{2} \ \underline{111} \ 2 \ \underline{111} \ \underline{2}$

```

sol(n) {
    if(n==0) return;
    sout(n);
    sol(n-1);
    sout(n);
    sol(n-1);
    sout(n);
}

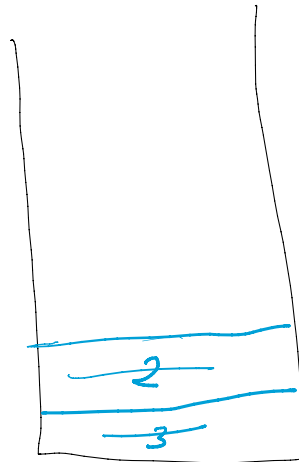
```

```

public static void triplets(int n){
    1 if(n==0) return;
    2 System.out.print(n);
    3 triplets(n-1);
    4 System.out.print(n);
    5 triplets(n-1);
    6 System.out.print(n);
}

```

3 2 1 1 (2 1 1 2 3 2 1 1 2 1 1 2 3



~~1 2 3 4 5 6~~