

## Day61 2D Frog Hop Party

Open the Day61 2D Frog Hop Party repl. It has a runner class up top and Frog class down below.

In the main method, create a 2D array of Frog objects that is 8 by 10. Fill it with Frogs.

Write a method that prints a 2D Frog array by printing the Frog locations with a tab between each Frog. This would make your pond array print like this:

```
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
```

Make each Frog hop a random value from 0 to 9.

Make a loop and repeat the following until all Frogs are located at least 10 spaces out:

- Print "Round 1:" the first time through, then make each Frog hop a random value from 0 to 9 (each Frog hops its own random amount.)
- Print the pond.
- Print "Round 2:", hop them all (each a random value from 0 to 9) then print again.
- Between rounds, check all Frogs using a boolean checkPond() method. If all Frogs are at location 10 or higher, exit the loop.
- Once a specific Frog passes 10 it is never told to hop again.
- If one or more Frogs are at a location less than 10, go through all the Frogs and hop each of these underachieving Frogs a random value from 0 to 9 again; Frogs that are already 10 or more don't change.
- Once every single Frog is 10 or higher and this array has been printed, exit the loop and print your name.

In summary, you will must write at least two methods, one which prints the Frog pond array and one which checks the entire Frog pond array and returns true if all are at 10 or higher and false otherwise. You can hop the appropriate Frogs in your loop or you can write a third method that does the hopping, it's up to you.

The number of rounds that occur will vary because we're dealing with random numbers.

See next page for sample output.

Sample output:

Round 1:

```
1 2 7 3 1 3 2 2 8 4
7 4 9 2 6 6 8 5 2 7
6 2 0 9 3 5 2 8 6 6
0 6 2 9 3 0 0 1 2 7
9 2 5 7 3 5 4 9 3 2
1 5 9 0 5 4 5 1 7 6
3 9 2 2 4 5 6 6 5 5
3 5 4 7 4 3 5 0 8 9
```

Round 2:

```
6 7 13 7 6 10 4 10 11 10
11 8 17 6 14 13 11 10 11 14
15 3 8 12 10 10 7 17 12 13
1 9 8 18 9 2 6 1 2 11
17 9 14 11 8 9 4 16 5 11
3 14 10 5 11 13 7 2 14 13
12 18 7 6 4 11 10 8 12 9
3 9 5 12 7 7 8 6 13 17
```

Round 3:

```
11 9 13 15 6 10 6 10 11 10
11 13 17 6 14 13 11 10 11 14
15 10 9 12 10 10 16 17 12 13
4 16 15 18 16 10 6 2 6 11
17 18 14 11 8 12 7 16 7 11
4 14 10 6 11 13 16 9 14 13
12 18 13 10 9 11 10 9 12 15
3 15 8 12 15 14 16 11 13 17
```

Round 4:

```
11 13 13 15 14 10 6 10 11 10
11 13 17 13 14 13 11 10 11 14
15 10 16 12 10 10 16 17 12 13
8 16 15 18 16 10 11 2 15 11
17 18 14 11 14 12 8 16 8 11
5 14 10 14 11 13 16 18 14 13
12 18 13 10 13 11 10 10 12 15
6 15 17 12 15 14 16 11 13 17
```

Round 5:

```
11 13 13 15 14 10 14 10 11 10
11 13 17 13 14 13 11 10 11 14
15 10 16 12 10 10 16 17 12 13
9 16 15 18 16 10 11 6 15 11
17 18 14 11 14 12 12 16 8 11
14 14 10 14 11 13 16 18 14 13
12 18 13 10 13 11 10 10 12 15
13 15 17 12 15 14 16 11 13 17
```

Round 6:

```
11 13 13 15 14 10 14 10 11 10
11 13 17 13 14 13 11 10 11 14
15 10 16 12 10 10 16 17 12 13
16 16 15 18 16 10 11 9 15 11
17 18 14 11 14 12 12 16 8 11
14 14 10 14 11 13 16 18 14 13
12 18 13 10 13 11 10 10 12 15
13 15 17 12 15 14 16 11 13 17
```

Round 7:

```
11 13 13 15 14 10 14 10 11 10
11 13 17 13 14 13 11 10 11 14
15 10 16 12 10 10 16 17 12 13
16 16 15 18 16 10 11 13 15 11
17 18 14 11 14 12 12 16 8 11
14 14 10 14 11 13 16 18 14 13
12 18 13 10 13 11 10 10 12 15
13 15 17 12 15 14 16 11 13 17
```

Round 8:

```
11 13 13 15 14 10 14 10 11 10
11 13 17 13 14 13 11 10 11 14
15 10 16 12 10 10 16 17 12 13
16 16 15 18 16 10 11 13 15 11
17 18 14 11 14 12 12 16 17 11
14 14 10 14 11 13 16 18 14 13
12 18 13 10 13 11 10 10 12 15
13 15 17 12 15 14 16 11 13 17
```

Mr. Hays