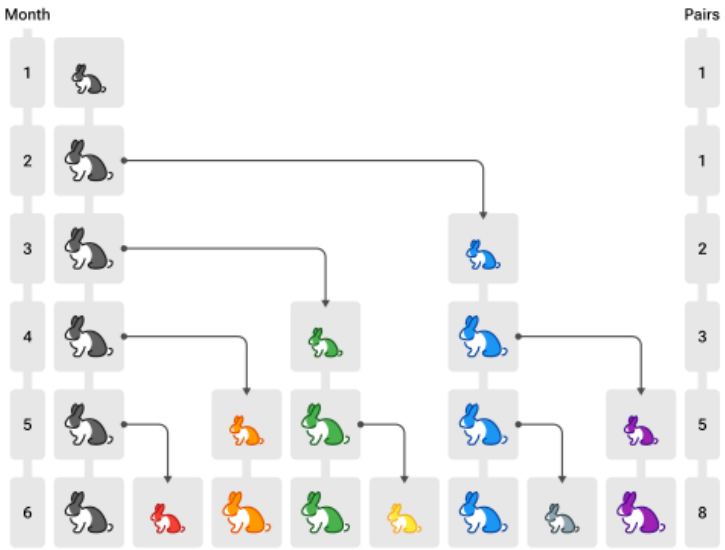
Summary

Sessions (10-01-2023)

- **Fibonacci Series** : The Fibonacci numbers are the numbers in the following integer sequence.

  0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, …..

- Above series is also known as **nature series** because this type of sequence also occurs in nature for example rabbit populations.



- Formula for calculation of the fibonacci series for “n” term.

  F(n) = F(n-1) + F(n-2)

  But if we want to use formula then we have to know about base case therefore for above formula base case is ***F(0) = 0 and F(1) = 1***

- Example of fibonacci series :

```
int fibonacci(int n) {
    if ( n == 0) return 0;
    else if ( n == 1) return 1;
    cout << n << endl;
    return fibonacci(n - 1) + fibonacci(n - 2);
}
```

Above code is non-tail recursion and space complexity is O(n).