

```
public static int compute(int number) {  
    if (number == 2) {  
        return 1;  
    }  
  
    return compute(number - 1) + compute(number - 2);  
}
```

The diagram illustrates the execution of the recursive function `compute`. It shows a sequence of nodes (circles) connected by lines, representing the call stack and the flow of data. The nodes are colored in shades of purple, orange, and yellow. The lines connect the nodes in a way that shows the recursive calls and the return values being passed back. The nodes are arranged in a way that shows the sequence of recursive calls, starting from the initial call `compute(4)` and branching out to show the recursive steps, eventually reaching the base case `compute(2)` and returning values back up the chain.