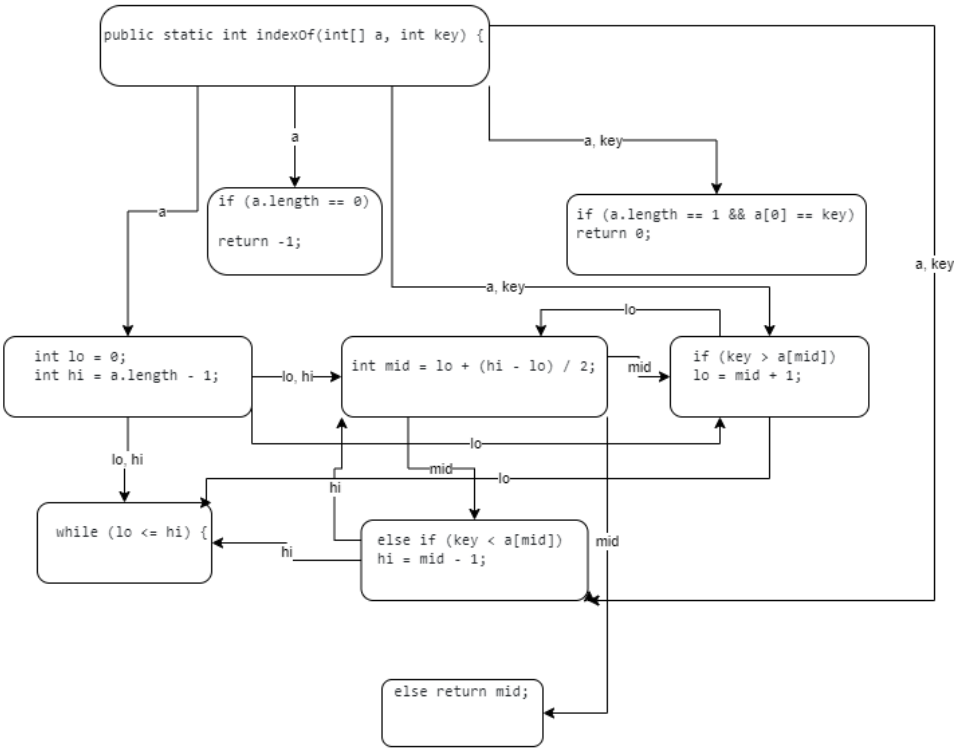
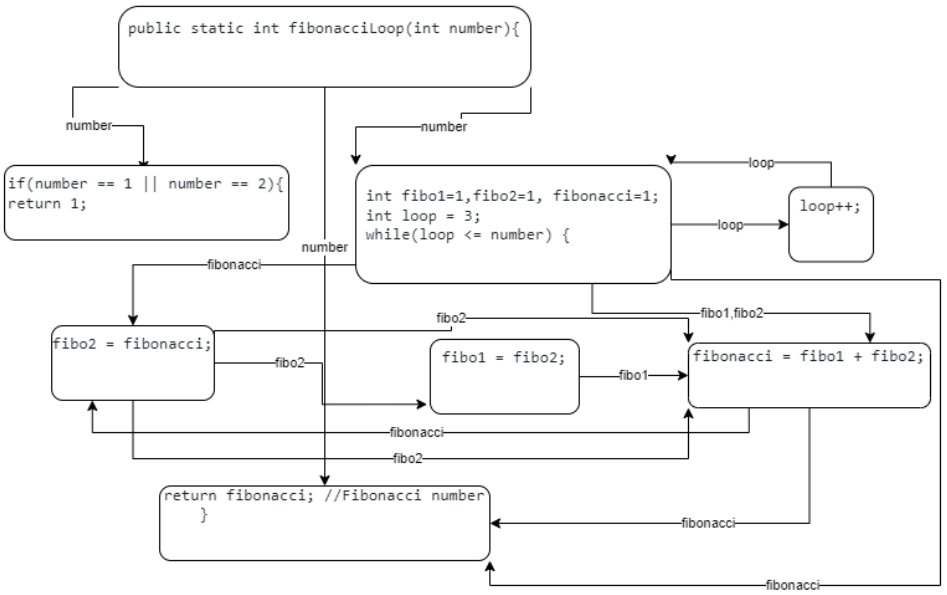
DATA DEPENDENCE GRAPH:

```
public static int indexOf(int[] a, int key) {
        if (a.length == 0)
           return -1;
        if (a.length == 1 && a[0] == key)
             return 0;
        int lo = 0;
        int hi = a.length - 1;
        while (lo <= hi) {
            int mid = lo + (hi - lo) / 2;
            if (key > a[mid])
                 lo = mid + 1;
            else if (key < a[mid])
                 hi = mid - 1;
            else return mid;
        }
        return -1;
}
```



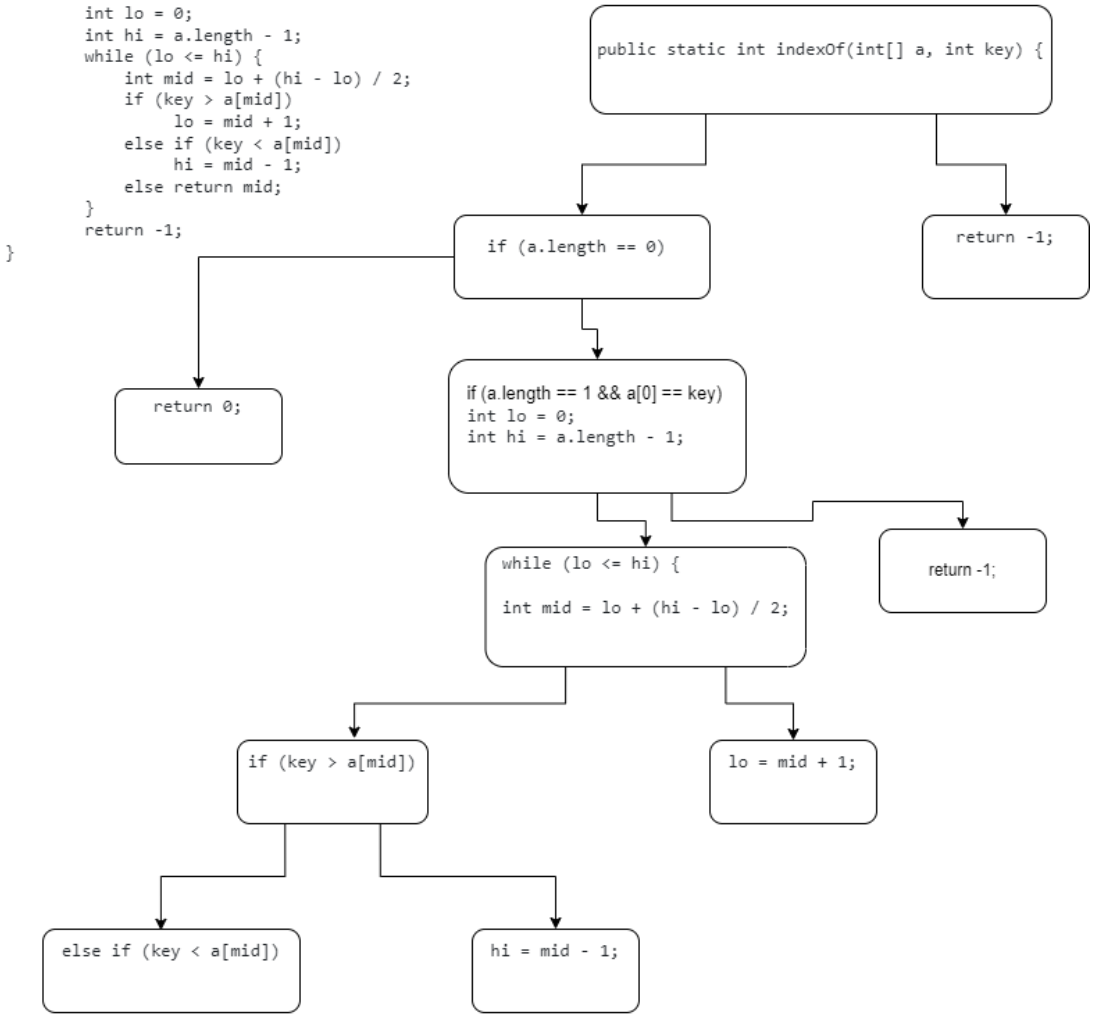

```
public static int fibonacciLoop(int number){

        if(number == 1 || number == 2){
            return 1;
        }
        int fibo1=1,fibo2=1, fibonacci=1;
        int loop = 3;
        while(loop <= number) {
            fibonacci = fibo1 + fibo2;
            fibo1 = fibo2;
            fibo2 = fibonacci;
            loop++;
        }
        return fibonacci; //Fibonacci number
    }
```



CONTROL DEPENDENCE GRAPH:

```
public static int indexOf(int[] a, int key) {
        if (a.length == 0)
           return -1;
        if (a.length == 1 && a[0] == key)
             return 0;
        int lo = 0;
        int hi = a.length - 1;
        while (lo <= hi) {
            int mid = lo + (hi - lo) / 2;
            if (key > a[mid])
                 lo = mid + 1;
            else if (key < a[mid])
                 hi = mid - 1;
            else return mid;
        }
        return -1;
}
```




```
public static int fibonacciLoop(int number){

        if(number == 1 || number == 2){
            return 1;
        }
        int fibo1=1,fibo2=1, fibonacci=1;
        int loop = 3;
        while(loop <= number) {
            fibonacci = fibo1 + fibo2;
            fibo1 = fibo2;
            fibo2 = fibonacci;
            loop++;
        }
        return fibonacci; //Fibonacci number
    }
```