Dog Class

```
public class Dog {
    int myAge:
    public Dog(int inputAge) {
        this.myAge = inputAge;
    }
    public void getOlder() {
        this.myAge++;
    }
    public String toString() {
        return "This dog is " +
this.myAge + "years old";
    }
    public static void
main(String[] args) {
        Dog fido = new Dog(2);
        fido.getOlder();
        System.out.println(fido);
    }
}
```

Java For Loop

```
for (int count = 0; count < 100;
count = count + 1){
    //Do Something Here
}
```

Big-O Order (slowest to fastest)

n^n
$n!$
2^n
n^3
n^2
$n\log(n)$
n^n
$\sqrt{n}$
$\log(n)$
1

Loop Counting

i=0	N+1
i=1	N+1
i=2	N+1
...	...
i=N-1	N+1
i=N	N=1
Total:	$N^2 + N$
Big-O	$O(N^2)$

```
for (int i=0; i<= N; i++){
for (int z=0; z <= N; z++{
//constant time operation
}
}
```