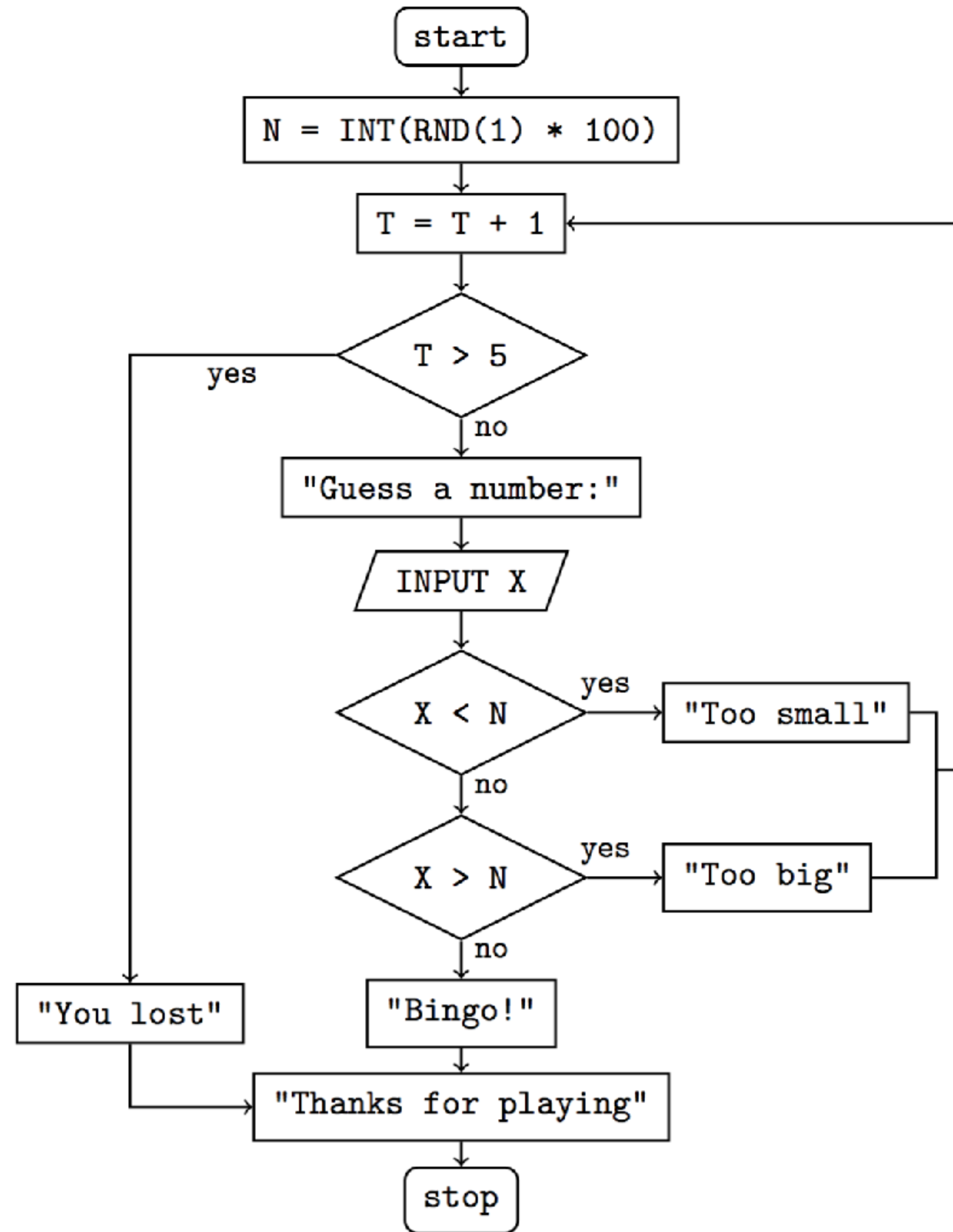


```
break;
```

# Utility Classes Are Killing Us

Utility классы нас убивают

Yegor Bugayenko



```
10 N = INT(RND(1) * 100)
20 T = T + 1
30 IF T > 5 THEN GOTO 120
40 PRINT "Guess a number in 0..100 range: "
50 INPUT X
60 IF X < N THEN PRINT "Too small."
70 IF X > N THEN PRINT "Too big."
80 IF X = N THEN GOTO 100
90 GOTO 20
100 PRINT "Bingo!"
110 GOTO 130
120 PRINT "You lost, sorry. It was: ", N
130 PRINT "Thanks for playing with me!"
```

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
int main(int argc, char** argv) {
    srand(time(NULL));
    int x, t=0, n=rand() % 100;
    while (++t <= 5) {
        printf("Guess a number in 0..100 range: ");
        scanf("%d", &x);
        if (x > n) {
            printf("Too big.\n");
        } else if (x < n) {
            printf("Too small.\n");
        } else {
            break;
        }
    }
    if (t < 5) {
        printf("Bingo!\n");
    } else {
        printf("You lost, sorry. It was: %d\n", n);
    }
    printf("Thanks for playing with me!\n");
}
```

```
import java.util.Scanner;
public class Main {
    public static void main(String... args) {
        int n = (int) (Math.random() * 100.0d);
        int t = 0;
        while (true) {
            if (++t > 5) {
                System.out.println("You lost, sorry. It was: " + n);
                break;
            }
            System.out.print("Guess a number in 0..100 range: ");
            int x = new Scanner(System.in).nextInt();
            if (x < n) {
                System.out.println("Too small.");
            } else if (x > n) {
                System.out.println("Too big.");
            } else {
                System.out.println("Bingo!");
                break;
            }
        }
        System.out.println("Thanks for playing with me!");
    }
}
```

```
import java.util.Scanner;
public class Main {
    public static void main(String... args) {
        int n = (int) (Math.random() * 100.0d);
        int t = 0;
        while (true) {
            if (++t > 5) {
                System.out.println("You lost, sorry. It was: " + n);
                break;
            }

```

```
System.out.print("Guess a number in 0..100 range: ");
int x = new Scanner(System.in).nextInt();

```

```
        System.out.println("Too small.");
    } else if (x > n) {
        System.out.println("Too big.");
    } else {
        System.out.println("Bingo!");
        break;
    }
}
System.out.println("Thanks for playing with me!");
}
}
```

```
import java.util.Scanner;
public class Main {
    public static void main(String... args) {
        int n = (int) (Math.random() * 100.0d);
        int t = 0;
        while (true) {
            if (++t > 5) {
                System.out.println("You lost, sorry. It was: " + n);
                break;
            }
            int x = InputUtils.read();
            if (x < n) {
                System.out.println("Too small.");
            } else if (x > n) {
                System.out.println("Too big.");
            } else {
                System.out.println("Bingo!");
                break;
            }
        }
        System.out.println("Thanks for playing with me!");
    }
}
```

```
class InputUtils {
    public static int read() {
        System.out.print(
            "Guess a number in 0..100 range: “
        );
        return new Scanner(System.in).nextInt();
    }
}
```

No state

У НИХ НЕТ СОСТОЯНИЯ



```
class RandomUtils {  
    public static int make() {  
        return (int) (Math.random() * 100.0d);  
    }  
}
```

```
class WhateverUtils {  
    public static int build() {  
        return ?;  
    }  
}
```

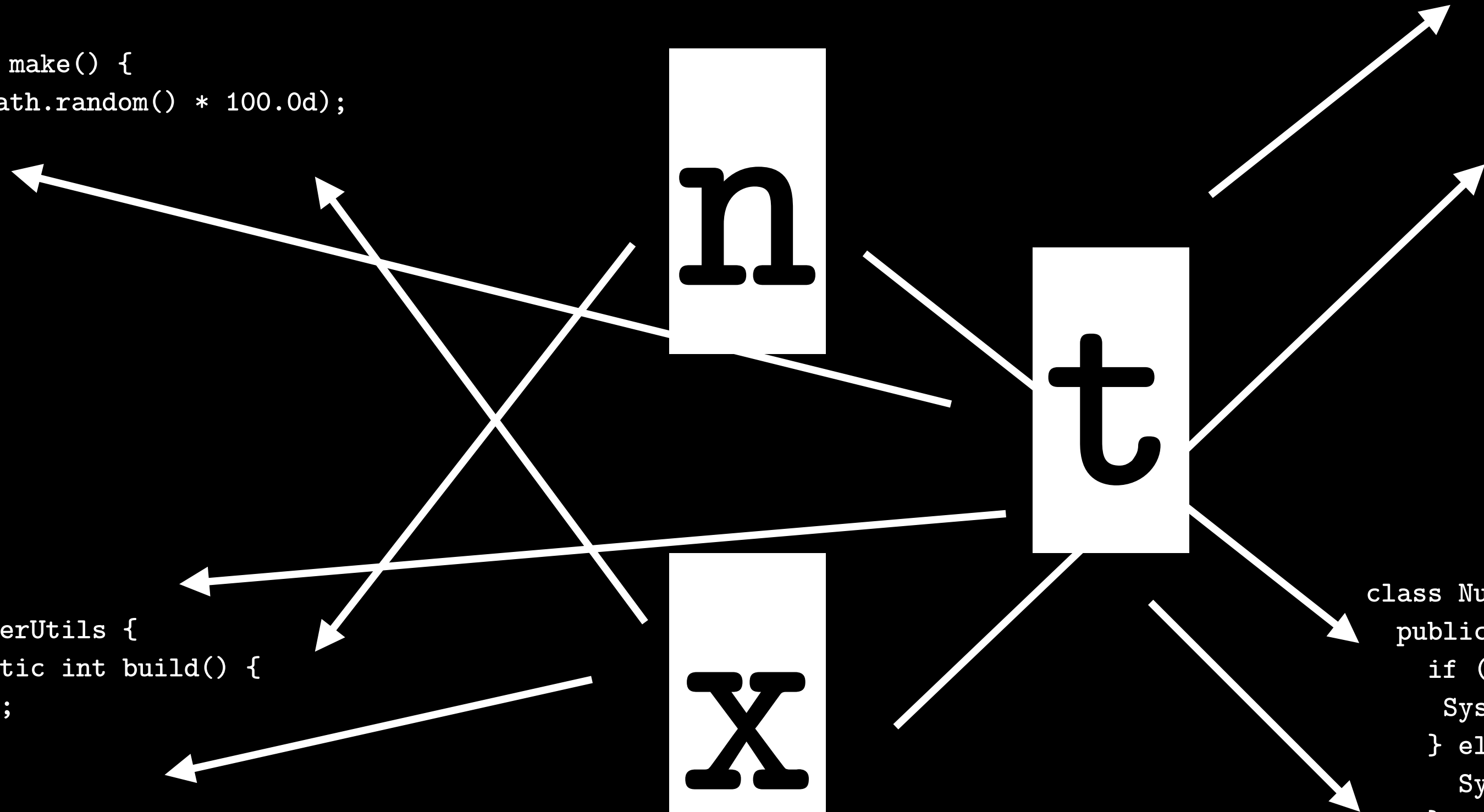
n

x

t

```
class InputUtils {  
    public static int read() {  
        System.out.print(  
            "Guess a number in 0..100 range: "  
        );  
        return new Scanner(System.in).nextInt();  
    }  
}
```

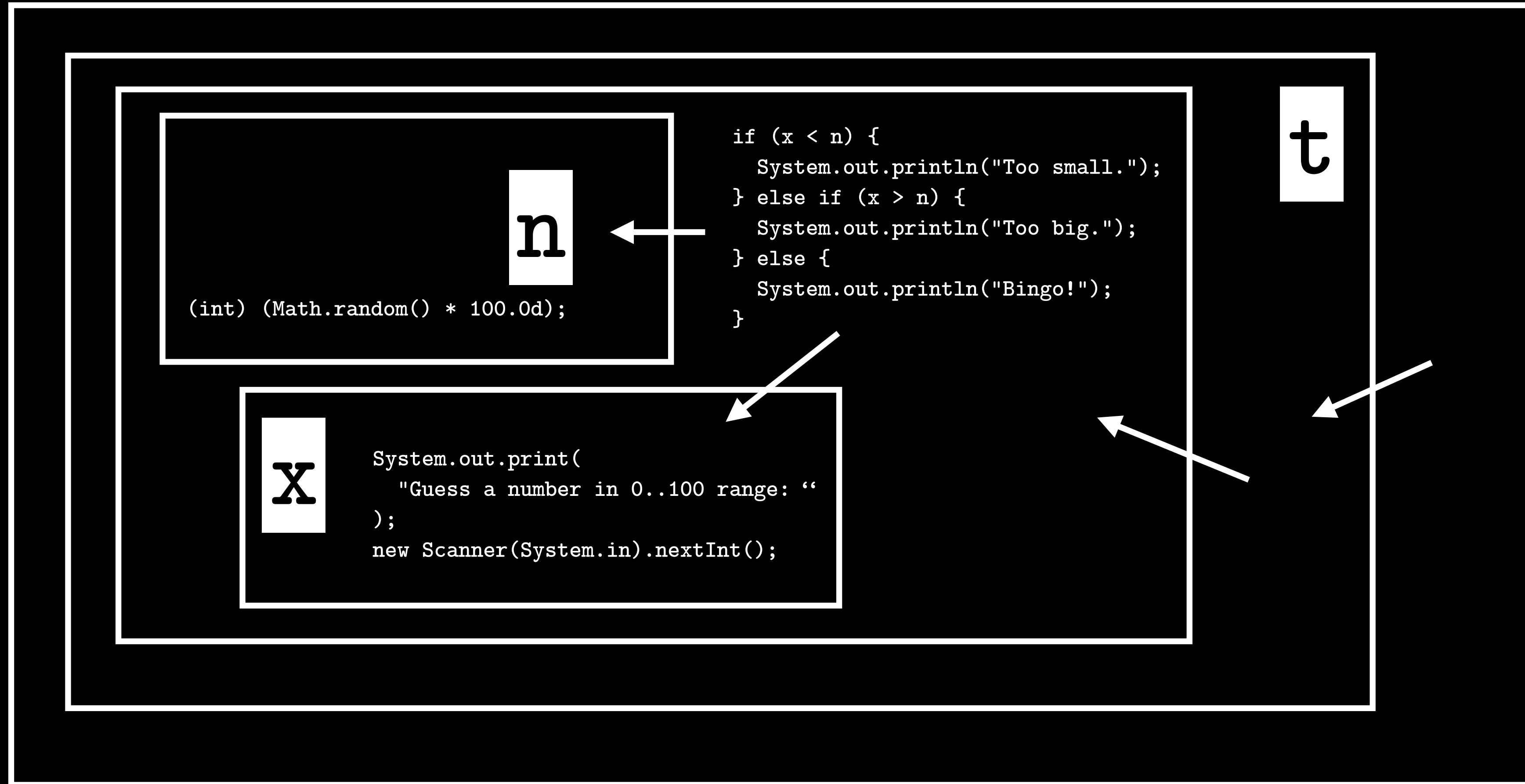
```
class NumberUtils {  
    public static int compare(int x, int n) {  
        if (x < n) {  
            System.out.println("Too small.");  
        } else if (x > n) {  
            System.out.println("Too big.");  
        } else {  
            System.out.println("Bingo!");  
        }  
    }  
}
```



```
import java.util.Scanner;
public class Main {
    public static void main(String... args) {
        int n = (int) (Math.random() * 100.0d);
        int t = 0;
        while (true) {
            if (++t > 5) {
                System.out.println("You lost, sorry. It was: " + n);
                break;
            }
            new Guess();
            if (x < n) {
                System.out.println("Too small.");
            } else if (x > n) {
                System.out.println("Too big.");
            } else {
                System.out.println("Bingo!");
                break;
            }
        }
        System.out.println("Thanks for playing with me!");
    }
}
```

```
class Guess implements Integer {
    @Override
    public int value() {
        System.out.print(
            "Guess a number in 0..100 range: “
        );
        return new Scanner(System.in).nextInt();
    }
}
```

```
new Farewell(  
    new Attempts(  
        new VerboseDiff(  
            new Diff(  
                new Secret() as secret,  
                new Guess()  
            )  
        ), 5  
    ),  
    secret  
).say();
```



```
import java.util.Scanner;
public class Main {
    public static void main(String... args) {
        int n = (int) (Math.random() * 100.0d);
        int t = 0;
        while (true) {
            if (++t > 5) {
                System.out.println("You lost, sorry. It was: " + n);
                break;
            }
            System.out.print("Guess a number in 0..100 range: ");
            int x = new Scanner(System.in).nextInt();
            if (x < n) {
                System.out.println("Too small.");
            } else if (x > n) {
                System.out.println("Too big.");
            } else {
                System.out.println("Bingo!");
                break;
            }
        }
        System.out.println("Thanks for playing with me!");
    }
}
```

```
new Farewell(
    new Attempts(
        new VerboseDiff(
            new Diff(
                new Secret() as secret,
                new Guess()
            )
        ), 5
    ),
    secret
).say();
```

