

# Strings

**Extra Examples**  
**(to complement *Lecture Slides 24+25, 27+28*)**

Adapted from <http://courses.coreservlets.com>.

# Example using Scanner

```
import java.util.*;
public class RandomNums {
    public static void main(String args[]) {
        System.out.print("How many random nums?");
        Scanner inputScanner = new Scanner(System.in);
        int n = inputScanner.nextInt();
        for (int i=0; i<n; i++) {
            System.out.println("Random num " + i + " is " +
                               Math.random());
        }
        inputScanner.close();
    }
}
```

Possible output ...

```
How many random nums? 5
Random num 0 is 0.08797018853121574
Random num 1 is 0.2772925713177794
Random num 2 is 0.6412727632142028
Random num 3 is 0.103861345836334
Random num 4 is 0.21990538207336774
```

# Example: printf versus println

```
public class TestPrintMethods {  
    public void printSomeStrings(String firstName, String lastName,  
                                int numPets, String petType) {  
        System.out.printf("Using printf: %s %s has %d %s.\n",  
                           firstName, lastName, numPets, petType);  
        System.out.println("Using println: " + firstName + " " +  
                           lastName + " has " + numPets + " " +  
                           petType + ".");  
    }  
    public static void main(String args[]) {  
        TestPrintMethods test = new TestPrintMethods();  
        test.printSomeStrings("John", "Doe", 7, "chickens");  
    }  
}
```

Output ...

```
Using printf: John Doe has 7 chickens.  
Using println: John Doe has 7 chickens.
```

# Example: Controlling Width and Precision

```
public void printSomeSalaries() {  
    CEO[] softwareCEOs = { new CEO("Jeff Bezos", 567.986323),  
                           new CEO("Larry Ellison", 6789.0),  
                           new CEO("Bill Gates", 78901234567890.12) };  
    System.out.println("SALARIES:");  
    for (CEO ceo: softwareCEOs) {  
        System.out.printf("%15s: $%,8.2f%n", ceo.getName(), ceo.getSalary());  
    }  
}
```

```
public class CEO {  
    private String name;  
    private double salary; // In millions ($).  
    public CEO(String name, double salary) {  
        this.name = name; this.salary = salary;  
    }  
    public String getName() { return(this.name); }  
    public double getSalary() { return(this.salary); }  
}
```

Output ...

```
SALARIES:  
    Jeff Bezos: $   567.99  
    Larry Ellison: $6,789.00  
    Bill Gates: $78,901,234,567,890.12
```