

String Methods

.toUpperCase() converts string to upper case

.toLowerCase() Converts string to lower case

.indexOf('ch') Index of the selected letter

.substring(x,y) between values (y exclude)

.length() returns the strings length

.replace(old,new) replaces old char with new

```
import java.util.Scanner;
Scanner input= new Scanner(System.in);
```

Scanner Methods:

.nextLine() ends with line

.next() ends with white space

.nextDouble()

.nextInt()

Import-ant statements

Import Statements

```
import java.util.*;
import java.text.*;
import java.swing.*;
import java.awt.*;
import java.swing.JFrame;
import java.util.random;
import java.util.scanner;
DecimalFormat df = new DecimalFormat(0.##);
RandomRange r = new RandomRange();
Scanner sc = new Scanner(System.in);
(sc.nextInt, nextline)etc
```

Loops

If Statement

```
if ( expression ) {
statements
} else if ( expression ) {
statements
} else {
statements
}
```

While Loop

```
while ( expression ) {
statements
}
```

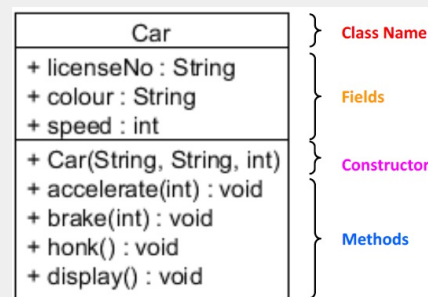
Loops (cont)

```
}
Do-While Loop
do {
statements
} while ( expression );
For Loop
for ( int i = 0; i < max; ++i) {
statements
}
Switch Statement
switch ( expression ) {
case value:
statements
break;
case value2:
statements
break;
default:
statements
}
```

Math methods

Math.pow(xy)	Math.sqrt(x)
Math.PI()	Math.log(x)
Math.random() *	but util random is
max+min	better

Class Diagram (UML)



+' = Public , '-' = Private
underlined = Static

// Constructors have the same name as the class.
// if return type is 'void' , no return statement is required.

Things That May Help

Default Construct

```
public "name thing"(){
}
```

Constructor

```
public "name thing"(int x, string y){
datafield x = x;
datafield y = y;
}
```

Mutator

```
public void setThing( string thing){
datafield thing = thing;
}
```

Accessor

```
public string getThing(){
return thing;
}
```

Creating a new instance

(class name) "instance name" = new (Class name);

alternatively you can pass data of instance to the constructor (non default) like this

(class name) "instance name" = new (Class name)(variables matching input parameter);

Calling a method / passing it data

instance.methodname(variable);

or

Instance1.setName("Ben Dover");