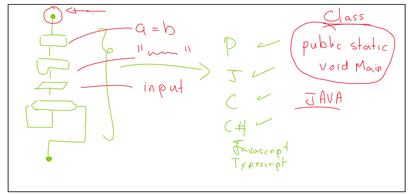
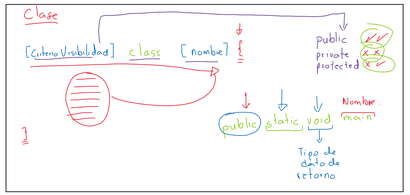
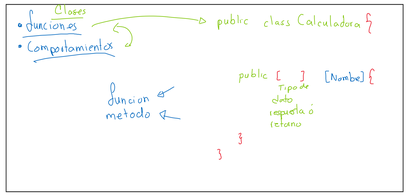
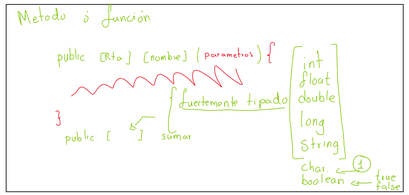
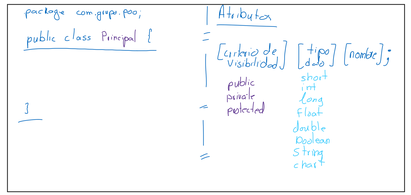
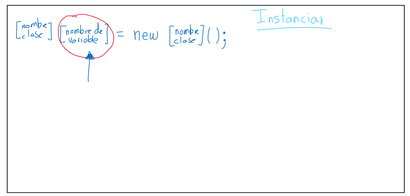

a = b
input
Class
public static void Main
JAVA
P
J
C
C#
Javascript
Typescript

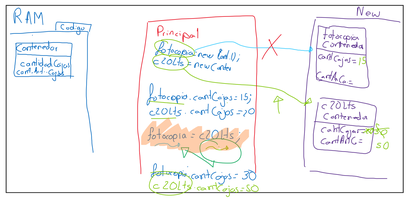

Clase
[Criterio Visibilidad] class [nombre] {
}
public
private
protected
public static void
Nombre "main"
Tipo de dato de retorno

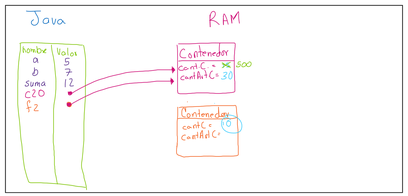

Clases
• funciones
• Comportamientos
public class Calculadora {
funcion
metodo
public [ ] [Nombre] {
Tipo de dato respuesta ó retorno
}

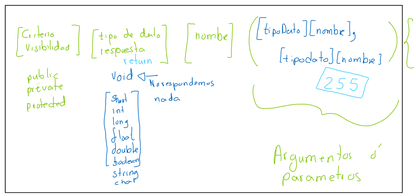

Metodo ó función
public [Rto] [nombre] (parametros) {
}
fuertemente tipado
int
float
double
long
String
char
boolean
true
false
public [ ] sumar

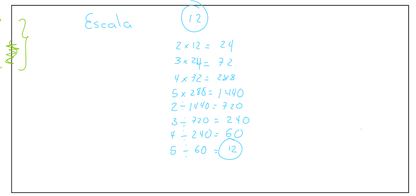

package com.grupo.poo;
public class Principal {
}
Atributos
[criterio de visibilidad] [tipo dato] [nombre];
public
private
protected
short
int
long
float
double
Boolean
String
char

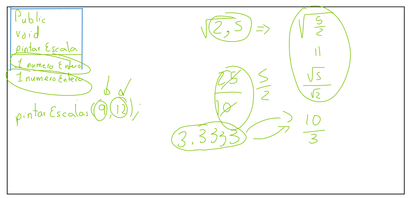

[nombre clase] [nombre de variable] = new [nombre clase]();
Instancias

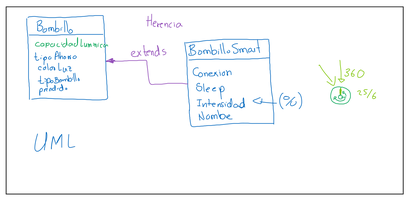

RAM
Codigo
Contenedor
cantidad Cajas
cantidad Cajas
Principal
fotocopia = new Int[];
c2Cts = new Carta
fotocopia.cantCajas = 15;
c2Cts.cantCajas = 20
fotocopia = c2Cts;
fotocopia.cantCajas = 30
c2Cts.cantCajas = 50
New
Fotocopia Contenedor
cantCajas = 15
cantAlC =
c2Cts Contenedor
cantCajas = 20
cantAlC = 50

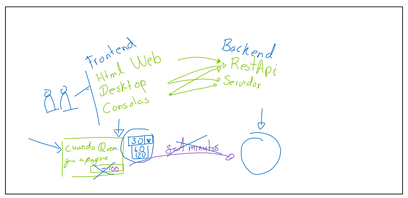

Java
RAM
nombre
Valor
a
b
suma
c20
f2
5
7
12
Contenedor
cantC = 50
cantAlC = 30
Contenedor
cantC = 10
cantAlC =

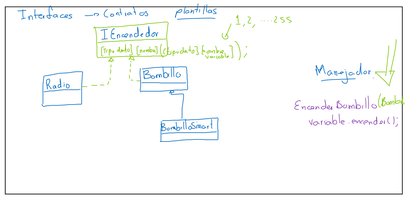

[Criterio Visibilidad]
[tipo de dato respuesta return]
[nombre]
([tipodato][nombre],
[tipodato][nombre])
255
public
private
protected
Void
No respondemos nada
int
long
float
double
Boolean
String
char
Argumentos ó parametros

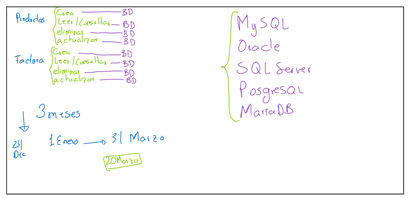

Escala
12
2 x 12 = 24
3 x 24 = 72
4 x 72 = 288
5 x 288 = 1440
2 ÷ 1440 = 720
3 ÷ 720 = 240
4 ÷ 240 = 60
5 ÷ 60 = 12

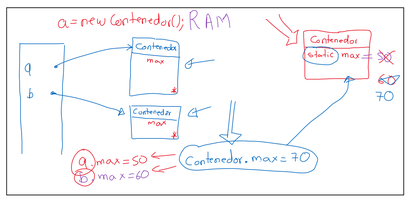

Public void
pintar Escala
1 numero Entero
1 numero Entero
pintar Escalas(9, 12);
√(2,5) ⇒ √(5/2)
11
√5
√(5/2)
5/2
10/3
3.3333

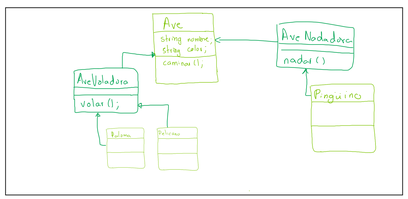

Bombillo
caracteristicas
tipo Foco
cola Luz
tipo Bombilla
potencia
extends
Herencia
BombilloSmart
Conexion
Sleep
Intensidad
Nombre
(%)
360
25/6
UML


Frontend
Mint Web
Desktop
Consoles
Backend
RestApi
Servidor
Cuando Quien que requiere
30k
120
minutos

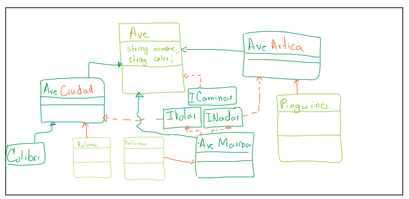

Interfaces → Contratos
plantillas
1, 2, ... 255
IEncendedor
[Tipo dato] [nombre] ([tipodato] [nombre variable]);
Radio
Bombillo
BombilloSmart
Manejador
Encender Bombillo(Bombillo variable.encender();

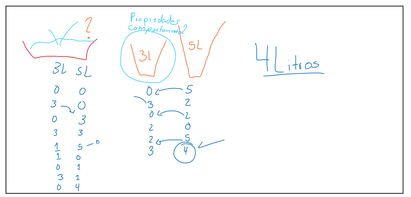

Productos
Crear
Leer (Consultar)
eliminar
actualizar
BD
Tareas
3 meses
1 Enero → 31 Marzo
20 horas
MySQL
Oracle
SQL Server
Posgresql
MariaDB


a = new Contenedor(); RAM
a
b
Contenedor
max
Contenedor
max
Contenedor
static max
50
60
70
a.max = 50
b.max = 60
Contenedor.max = 70


Ave
String nombre
String color;
caminar ();
Ave Nadadora
nadar ()
Ave Voladora
volar ();
Pinguino
Retorno

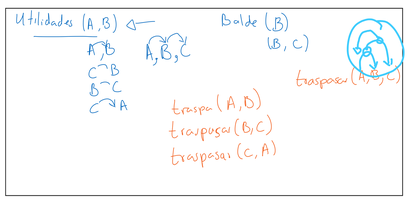
Comportamientos ≈ Interfaces

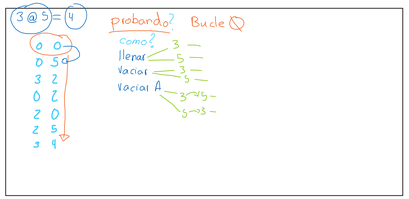

Ave
String nombre
String color;
Ave Ciudad
Ave Antica
ICaminar
IVolar
INadar
Ave Marina
Pinguino
Colibri
Retorno

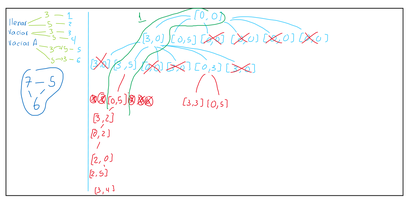

3L
5L
Propiedades Contenedores
4 Litros

public void traspasar(Contenedor origen, Contenedor destino) {
int totalAgua = destino.getContenidoActual() + origen.getContenidoActual();
if(totalAgua > destino.getCapacidadMax()) {
destino.llenar();
int sobrante = totalAgua - destino.getContenidoActual();
origen.setContenidoActual(sobrante);
} else {
}
}
3/5
6/7
0/5
7/7

public void traspasar(Contenedor origen, Contenedor destino) {
int totalAgua = destino.getContenidoActual() + origen.getContenidoActual();
if(totalAgua > destino.getCapacidadMax()) {
destino.llenar();
int sobrante = totalAgua - destino.getContenidoActual();
origen.setContenidoActual(sobrante);
} else {
destino.setContenidoActual(totalAgua);
origen.vaciar();
}
}
3/5
0/5
3/7
6/7


Utilidades (A, B)
A, B
C, B
B, C
C, A
Bolde (B)
B, C)
A, B, C
traspasar(A, B, C)
traspasar(A, B)
traspasar(B, C)
traspasar(C, A)


3 @ 5 = 4
probando?
Bucle
como?
llenar
vaciar
vaciar A


llenar
vaciar
vaciar A
[0,0]
[3,0]
[0,5]
[3,5]
[3,3]
[0,3]
[2,0]
[2,5]
[3,4]