

Programa Java developer - Java Developer Program

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1. Programacion Estructurada - Structured Programming

- (a) Cual es el significado paradigma estructurado? - What is the meaning of Structured paradigm? (leer, read: [paper - articulo](#))
- (b) Java - Que es? What is it?, Para que sirve? What is it for? Aun es usado? - is it still used?
- (c) What I need to run a Java program? - Que necesito para correr un programa de java? - JDK - Java development Kit, JRE - Java Runtime Environment, IDE - integrated development environment
- (d) Variables: Primitive types in Java (char, double, float, boolean, long, byte) [paper ranges-types](#)
[paper paper-what-is-a-variable](#)
- (e) An special type of variable: String (many characters together)
- (f) Let's create our first Java program: Printing our first "Hello world" in console.
- (g) Arithmetic Operators - Operadores aritmeticos, read: [paper](#)
- (h) Boolean Operators - Operadores booleanos, read: [paper](#)
- (i) Repeat and repeat is the key - Repetir y repetir es la clave, Flow control Structures - Estructuras de control de flujo: if, if-else, if-else if-else, while, for, switch.

2. OPP - Object Oriented Programming - POO - Programacion Orientada a Objetos

- (a) Cual es el significado paradigma orientado a objetos? - What is the meaning of Object Oriented Programming? (leer, read: [paper - articulo](#))
- (b) Que es una clase? What is a class?
- (c) Que es un Objeto? What is an Object?
- (d) Como instanciar (declaracion e instancacion) un objeto? How do we instantiate objects?

Question Asking for an Algorithm

Main idea

Explain, in a few sentences, the key steps of your algorithm, focusing on the (usually) single key insight that would be a total giveaway to the problem if you shared it with a classmate. This is the single most important part of your solution, because if you clearly demonstrate your understanding of the solution here, the readers tend to be more forgiving of small errors elsewhere.

Pseudocode

Write pseudocode for your algorithm here. A fellow CS 170 student should be able to generate working code from your pseudocode. However, the pseudocode itself should not be working code, as this is usually too detailed. Feel free to abstract away basic operations. For example:

```
procedure POKEMON NONSENSE(array  $P$ , height  $h$ )
  Set maxHeight := 0
  for  $p$  in  $P$  do
    if height( $p$ ) > maxHeight then
      Set maxHeight := height( $p$ )
    else
      I wanted to demonstrate an else clause.
  while There are two Pokemon  $p_1$  and  $p_2$  in  $P$  who haven't been paired up do
    Pair up  $p_1$  and  $p_2$ .
  Set singleHeight := height( $p$ ) if there is an unpaired Pokemon  $p$  and 0 otherwise.
  Return max(singleHeight, maxHeight)
```

Proof of correctness

See [this detailed explanation](#) for more details on proofs and the other parts of your answer.

Running time analysis

State your algorithm's runtime and your justification for why it is correct.