KeyWords

* C#
* C++
* Java
* SQL

Interviews Questions:

1. Experience and Importance of the support, testing and develop procedures.
2. How to solve the problems of replication between two Databases.
   * Pooling or Observer
3. What is a BTree.

. Arbol balanceado:  a **B-tree** is a self-balancing tree data structure that keeps data sorted and allows searches, sequential access, insertions, and deletions in logarithmic time. The **B-tree** is a generalization of a binary search tree in that a node can have more than two children.

Uses: Index in data bases.

1. Stateless and statefull protocol, what type is HTTP?
   1. Stateless: Sin estado. Asincrono. HTTP.
   2. Statefull: Con estado. Syncrono. FTP.
2. What is AJAX and uses?
   1. **JavaScript Asíncrono y XML (AJAX)** no es una tecnología por sí misma, es un término que describe un nuevo modo de utilizar conjuntamente varias tecnologías existentes. Esto incluye: [HTML](https://developer.mozilla.org/es/docs/Web/Guide/es/HTML) o [XHTML](https://developer.mozilla.org/es/docs/Web/Guide/es/XHTML), [CSS](https://developer.mozilla.org/es/docs/Web/Guide/es/CSS), [JavaScript](https://developer.mozilla.org/es/docs/Web/Guide/es/JavaScript), [DOM](https://developer.mozilla.org/es/docs/Web/Guide/es/DOM), [XML](https://developer.mozilla.org/es/docs/Web/Guide/es/XML), [XSLT](https://developer.mozilla.org/es/docs/Web/Guide/es/XSLT), y el objeto [XMLHttpRequest](https://developer.mozilla.org/es/docs/Web/Guide/es/XMLHttpRequest). Cuando estas tecnologías se combinan en un modelo AJAX, es posible lograr aplicaciones web capaces de actualizarse continuamente sin tener que volver a cargar la página completa. Esto crea aplicaciones más rápidas y con mejor respuesta a las acciones del usuario.
3. Desgin Pattern: Singleton, Observe.
   1. Singleton:

A class of which only a single instance can exist and it’s globaly accessible. Methods: static Singleton getInstance(), the constructor is private.

* 1. Observe:

A way of notifying change to a number of classes. Communicate the changes in one class to the reset connected. 2 Interfaces: ISubject and IObserver. Methods: ISubject.AttachObserber(), ISubject.DettachObserber() and ISubject.SendNotification().

* 1. Factory- Abstract Factory:

The abstract class or interface constructor must be protected. Used in the List of the User Interface to group the same family. Abstract-Factory = Factory of factories (grouping different families). getType().

1. Create a small numerical function.

### [Senior Software Engineer at Amazon was asked...](https://www.glassdoor.ca/Interview/Amazon-Senior-Software-Engineer-Interview-Questions-EI_IE6036.0,6_KO7,31.htm)

18 Oct, 2011

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| Rand(7) from Rand(5)  [7 Answers](https://www.glassdoor.ca/Interview/Rand-7-from-Rand-5-QTN_200619.htm)  The simple solution is to implement RandBin() using Rand5(). int RandBin() { }  Sorry this UI posts without warning int RandBin() { int rand5Res = Rand5(); return rand5Res &lt; 2 ? 0 : rand5Res &lt; 4 ? 1 : RandBin(); } And then use RandBin() to implement Rand7; int Rand7() { int rand = RandBin() &lt;&lt; 2 | RandBin() &lt;&lt; 1 | RandBin(); return rand &lt; 7 ? rand : Rand7(); }  int rand7() { while(1) { int n = ((rand5()%2)\*4 + (rand5()%2)\*2 + (rand5()%2)\*1); if(n == 0) continue; return n; } } The rand5()%2 will generate 0 and 1 with equal probability and we need 3 bits since we are going from 000 upto 111. So we call this function thrice for each bit position. |

C++

int rand7(){

int x=8;

while(x>7)

x=rand5()+5\*rand5()-5;

return x;}

Otan Bruselas:

* Aspectos de seguridad de una Aplicación web.
* Aspectos de seguridad en general: Cyber Seguridad
* Cual es tu debilidad?
* Cuales son tus puntos fuertes?
* Porque eres el mejor para este puesto?
* Ejercicio sobre ListBox.
* Ejercicio sobre parsing ficheros.