Why do you want to leave your current job?

Because on December of this year I will finish my degree on Computer Science and I am looking for a full time position on relation with my degree.

Tell me about yourself?

I am happily single men, and originally from Spain. I arrive to the United States almost 5 years ago, and then I started learning English, when I arrive o the United States I didn't speech English. Also at the same time I started studying my degree in computer science.

I have several hobbies. One of my hobbies is play tennis (I like sports), another one is build small Radio control Helicopters, and my favorite one is computers programmer. I like to build my own application and learn how this new technology works.

I speech two languages. I have a lot of experience working with foreign culture.

And I consider myself friendly, dedicate and Creative.

What are you currently earning?

Right now my salary is very low because I am an student. My job right know is Teacher Assistants and I receive $15 dollar per hour. How I am an student I can not works more that 20 hours per/ week.

20 * 15 = $300 / Week

What are your salary expectations?

I'm pretty flexible and open.
But I'm sure you will make me a fair offer.
To be honest I am not sure. From the research that I have done it appears to be in the $60,000 - $70,000 range. Is that the range you had in mind?

Will you relocate?

It will be not necessary right now because I am living on Philadelphia, but I will need to buy a car because the transportation to go to your company SEI Investment is not very good.

I was thinking how to buy a car because I am a current student and I do not have too much money.

On a scale of 1 -10, rank your skill level with programming.

My skill level on programming is about 8.

I consider myself a good programmer in general. I really like make application on cordova (Phonegap). Also I am good programming websites. Wit HTML5, css, javascript, jquery, java.

What are your career goals?

I would like be part of an important company like SEI your and group up there.

I need some stability and I do not want for one or two years, I want a job to group up there and be part of the company on the future.

Also I am looking for a job to continue learning to improve everyday my knowledge on developer.

What are your greatest strengths?

I consider myself Honest, Responsible, Confident, Creative, Dedicated, Problem solver, sense of humor, Friendly.

Honest because I thing this is the most important value for a person.
Responsible,
Creative. I like to create think. **(Examples Helicopter, and build apps)**
Dedicate: I do not stop my work until it is not finish

What was your greatest accomplishment?

I am very proud for 2 applications that I develop for Temple University.

One is called ScienceTap, it is a program that I developed from the Earth & and environment department. To collect scientist data.

Trak.

When can you start?

I can start after my graduation. I will able to start on January 5.

January fifth because during Christmas I will travel to Spain. I will back on January 4.

Why I will hide you?

You should hire me because I am hardworking, flexible, and most importantly, dedicated to my job.

I am responsible on my job and I am good working with teams.
I like to share my knowledge with my team and also I like to learn from them.

All time I want to prove myself, and I can offer a lot of my knowledge's about developer.

During my interview last October 13, I learn a lot of SEI and I perceive that there exist a developer team who create phonegap applications.

I have a lot of experience on Temple University developing phonegap applications and also I am teaching assistant on mobile development.

I think that my knowledge about mobile programming can contribute positively on this team.

Another feature is that I speak two languages English and Spanish.

I consider myself hones, Responsible, Confident, Creative, Dedicate, Problem solver, sense of humor, Friendly.

PROGRAMMING QUESTIONS

Abstract class:

A class must be declared **abstract** when it has one or more abstract *methods* I other words its declared abstract when it has a method heading, but no body – which means that an abstract method has no implementation code inside curly braces like normal methods do.

A no abstract class is called a concrete class.

You should also know that any non abstract class is called a **concrete** class. Knowing your terminology defintely pays off in an interview.

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Object Oriented Programming (OOP)

- Modular development of code, which leads to easy maintenance and modification.
- Reusability of code.
- Improved reliability and flexibility of code.
- Increased understanding of code.

Object-oriented programming contains many significant features, such as **encapsulation**, **inheritance**, **polymorphism** and **abstraction**. We analyze each feature separately in the following sections.

Encapsulation

Encapsulation provides objects with the ability to hide their internal characteristics and behavior.

Each object provides a number of methods, which can be accessed by other objects and change its internal data.

In Java, there are three access modifiers: **public, private and protected.**

- The internal state of every objected is protected by hiding its attributes.
- It increases usability and maintenance of code, because the behavior of an object can be independently changed or extended.
- It improves modularity by preventing objects to interact with each other, in an undesired way.

Inheritance

Inheritance provides an object with the ability to get the fields and methods of another class, called base class.

It is good because you can re-use the code that you use for other feature.

Inheritance provides re-usability of code and can be used to add additional features to an existing class, without modifying it.

Abstraction

Abstraction is the process of separating ideas.

The abstraction technique help to separate the implementation details of a class from its behavior.

Differences between Abstraction and Encapsulation

Abstraction and encapsulation are complementary concepts. On the one hand,

Abstraction focuses on the behavior of an object

Encapsulation focuses on the implementation of an object's behavior. Encapsulation is usually perform by hiding information about the internal state of an object and thus, can be seen as a strategy used in order to provide abstraction.

General Questions about Java

1. What is JVM ? Why is Java called the "Platform Independent Programming Language" ?

A Java virtual machine (JVM) is a process [virtual machine](#) that can execute Java [bytecode](#).

Each Java source file is compiled into a bytecode file, which is executed by the JVM. Java was designed to allow application programs to be built that could be run on any platform

2. What is the Difference between JDK and JRE ?

The Java Runtime Environment (JRE) is basically the Java Virtual Machine (JVM) where your Java programs are being executed. It also includes browser plugins for applet execution.
The Java Development Kit (JDK) is the full featured Software Development Kit for Java, including the JRE, the compilers and tools (like `JavaDoc`, and `Java Debugger`), in order for a user to develop, compile and execute Java applications.

3. What does the "static" keyword mean ? Can you override private or static method in Java ?

The static keyword denotes that a member variable or method can be accessed, without requiring an instantiation of the class to which it belongs.

A user cannot override [static methods in Java](#), because method overriding is based upon dynamic binding at runtime and static methods are statically binded at compile time.

A static method is not associated with any instance of a class so the concept is not applicable.

4. Can you access non static variable in static context ? A static variable in Java belongs to its class and its value remains the same for all its instances. A static variable is initialized when the class is loaded by the JVM. If your code tries to access a non-static variable, without any instance, the compiler will complain, because those variables are not created yet and they are not associated with any instance.

5. What are the Data Types supported by Java ? What is Autoboxing and Unboxing ? The eight primitive data types supported by the Java programming language are:

- byte
- short
- int

- long
- float
- double
- boolean
- char

`Autoboxing` is the [automatic conversion made by the Java compiler](#) between the primitive types and their corresponding object wrapper classes. For example, the compiler converts an int to an `Integer`, a double to a `Double`, and so on. If the conversion goes the other way, this operation is called `unboxing`.

6. What is Function Overriding and Overloading in Java ?

Method overloading in Java occurs when two or more methods in the same class have the exact same name, but different parameters.

On the other hand, method overriding is defined as the case when a child class redefines the same method as a parent class. Overridden methods must have the same name, argument list, and return type. The overriding method may not limit the access of the method it overrides.

7. What is a Constructor, Constructor Overloading in Java and Copy-Constructor ?

A constructor gets invoked when a new object is created. Every class [has a constructor](#). In case the programmer does not provide a constructor for a class, the Java compiler (Javac) creates a default constructor for that class.

8. Does Java support multiple inheritance ? No, Java does not support multiple inheritance. Each class is able to extend only on one class, but is able to implement more than one interfaces.

9. What is the difference between an Interface and an Abstract class ?

Java provides and supports the creation both of [abstract classes](#) and interfaces. Both implementations share some common characteristics, but they differ in the following features:

- All methods in an interface are implicitly abstract methods.
- On the other hand, an abstract class may contain both abstract and non-abstract methods.

▪

10. What are pass by reference and pass by value ?

When an object is passed by value, this means that a copy of the object is passed. Thus, even if changes are made to that object, it doesn't affect the original value.

When an object is passed by reference, this means that the actual object is not passed, rather a reference of the object is passed. Thus, any changes made by the external method, are also reflected in all places.

Java Threads

11. What is the difference between processes and threads ?

A process is an execution of a program, while a `Thread` is a single execution sequence within a process. A process can contain multiple threads. A `Thread` is sometimes called a lightweight process.

12. Explain different ways of creating a thread. Which one would you prefer and why ?

There are three ways that can be used in order for a `Thread` to be created:

- A class may extend the `Thread` class.
- A class may implement the `Runnable` interface.
- An application can use the `Executor` framework, in order to create a thread pool.

The `Runnable` interface is preferred, as it does not require an object to inherit the `Thread` class. In case your application design requires multiple inheritance, only interfaces can help you. Also, the thread pool is very efficient and can be implemented and used very easily.