**Test Developer Interview**

**Programming skills:**

C#, Python (could be useful!)

**Technologies:**

Unit Testing, Mocking, Fakes/Shims, Continuous Integration, Fitnesse, TFS

**General Testing Question:**

## What is the difference between unit testing and integrated testing?

## What is the difference between functional and non-functional testing?

## How would you go about testing legacy code? How would this be different to writing fresh code?

## Code you need to test makes frequent calls to the Database. What would you do?

## Stub? (Returns predefined answers you created for purpose of unit test. Testing state.)

## Mock? (Look for expectations. Only focusing on the Subject Under Test. Behaviour verification.)

[You are told to test a requirement which you do not entirely understand. What would be your approach?](http://www.careercup.com/question?id=6307100812640256)

## Programming Questions (C#)

Value type vs Reference

When you assign a value type to a variable (or pass it to a method as an argument), all of the data is copied. When you assign a reference type, only a reference is copied - both references point to the same object instance in memory. **Not a case of Stack Vs Heap!!**

Can ‘this’ be used inside a static method? Why not?

Interface (implement multiple interfaces) vs Abstract (default implementation)? Can you instantiate an abstract class?

What is a virtual function and when would you use it?

Creating a new Thread vs ThreadPool / TaskFactory?

Windows service vs a standard EXE? Lifecycle? Problems? (Long running, memory leak etc).

How is the ‘Using’ pattern useful? What is IDisposable?

What is the purpose of ‘Finally’ in a try catch statement?

**Behavioural:**

Describe the most difficult task you have overcome, or most annoying bug you resolved in projects.

What sort of team did you most recently work with? Projects where you worked closely with Dev, QA and Test Dev?