

## **R&P iOS code test**

At Robots and Pencils, our biggest key to innovation is our team. We are very selective in who we hire and only take on the best talent we can find.

So far we think you have some great experience, and we would love to see your technical skills in action. The following is a short iOS code test that our robots team has devised. Please read through the instructions carefully and complete the test by the deadline outlined in the email.

If you have any questions or need further clarification, please do not hesitate to reach out. We look forward to seeing your work.

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### **Instructions:**

Lets say you have instances of class `RPCComment` that needs to get saved somehow, via a *Remote Store* of some type.

1. Please provide draft code, pseudo-code or a clear description that indicates how you would save these comment objects to a *remote store* in such a fashion as to allow:
  - a. The *Remote Store* to be changed at some unknown point in the future, for example, from Parse to a RESTful server, minimizing impact on the iOS code – particularly avoiding direct changes to the `RPCComment` class itself. (Don't worry about the API interface to the datastore unless that is key to your solution.)
  - b. The design pattern(s) adopted and implemented for `RPCComment` to be leveraged, minimizing code duplication, to allow other objects (e.g. `RPAnnotation`) to be saved similarly.

*Key to our interest in this problem are the Cocoa design patterns and language features that you would use to accomplish these two goals efficiently and cleanly, maximizing OO reusability and flexibility while avoiding over-designed code :)*

2. Make any assumptions you would like, just make sure that you **clearly** state your assumptions. (e.g. Don't worry about the low level details like networking code or asynchrony – focus on the *patterns* that allow (a) and (b) to be accomplished.

**Please note:** For the record, and to be totally clear, we've drafted a solution for this problem so this is *not* spec work ( <http://www.no-spec.com/faq/> ). Whether yours matches our draft (which may now be implemented) or is completely different is insignificant. We're just trying to see the tools in your toolbox that you'd use to slice this real-life challenge.

One of our developers spent two hours defining a solution as a gist (<https://gist.github.com> ). We would expect you to take an hour more or less than that.