**Interview Code Sample**

*Scenario:*

The company is developing a new system to manage its orders. Phase 1 will implement basic order functionality for 3 types of orders. Additional order types may be added in the future.

*Business Requirements:*

* There are 3 types of orders: Paramed, Credit Check, and Criminal Report.
* All orders have an order id, customer name, account number, and a collection of services.
* A user must be able to perform the following actions on an order, but each action may behave differently depending on the type of order.
  + Add a service
  + Cancel order
  + Send to billing

*Design Requirements:*

* In your implementation try to demonstrate use of the following coding techniques where appropriate: Class, Property, Inheritance, Collections, Overriding, Interface, Abstract Class, Singleton, and Repository.
* The output should be on an ASP.NET MVC web page. Clicking an html button should use AJAX to retrieve a list of orders and display them in a text area. For each order, display these fields: order id, account number, customer name, count of services. I have included a sample screenshot of the output at the bottom of this document.

*Coding:*

* You don’t need to implement the actual behaviors. Inside each method, you can just output something like “Cancel Paramed Order” for pseudo code. We are more interested in the structure and design concepts used.
* Somewhere in code, demonstrate polymorphic behavior based on one of the actions defined in the Business Requirements section above.
* Create a class diagram that displays your implementation.

*Other Constraints:*

* Spend about 1 hour, absolutely no more than 1 ½ hours working on this.

Final Note: T*here is no “perfect” answer and there is always more than one “right” answer. Just create code that you feel addresses the problem given. Thank you.*

