**CS648   
Assignment 13**

In the previous assignment you used React to create a simple inventory / product management system. In that assignment you simulated CRUD operations by outlining a static object and using event handlers to retrieve, create, and delete items within the object. While this assignment helped you get your feet wet as it relates to React, it didn’t do much in terms of teaching you how to create a full-stack app that relies on the frameworks covered throughout this course including Node, Express, MongoDB, etc. In this assignment, which will also serve as your final, you will do just that. You will take what you built in the previous assignment and make it work with Node, Express, and MongoDB to create a full-stack web application that leverages modern web development frameworks to create a common inventory / product management dashboard. Assuming you completed the previous assignment, this assignment should involve nothing more than:

1. Creating a MongoDB cluster for your object
2. Build an API in Node/Express that interacts with MongoDB
3. Connect your application to your Node endpoints to perform CRUD operations

*Note: I will provide the files that you will use for this project. Please use my files, not your files from Assignment 12.*

**Create a MongoDB cluster for your project**

When creating your object in MongoDB, build it out as follows:

{  
"id": 0,  
"product": {  
 "productid": 0,  
 "category": "",  
 "price": 0,  
 "name": "",  
 "instock": true  
 }  
}

You will need to make some minor changes to the front-end to accommodate the new object structure. Also make note of the new “In Stock” property. Make sure that’s visible in the front-end somewhere as well.

**Build an API in Node/Express that interacts with MongoDB**

Create the following endpoints to edit the object as well as retrieve it:

* /product/get/ Gets all products
* /product/create Creates a product
* /product/update/{id} Updates a product by ID
* /product/delete/{id} Removes a product by ID

**Connect your front-end application to your Node endpoints**

You will need to make some changes to the code that I’m supplying to accommodate the revised architecture. Up to this point, the easy part of creating the MongoDB instance and building out the necessary endpoints is done. Now you have to make it all work!