

Last Updated: 3/31/15

Topic Name: Model View Controller Pattern (MVC)

Brief Introduction:

The main purpose of this design is to separate the application concerns. There are three main subjects in this type of design pattern namely: Model, View, and the Controller. Each subject has a different responsibility when it comes to the application as follows:

Model: In Java the model usually represents some kind of data container, object or database. It may have some functionality to update the controller if data changes.

View: The view in Java is what the user can see and interact with.

Controller: This is the middleman between the view and the model in the MVC pattern and is in charge of dataflow between the two and keeps interaction with the view separate from the model.

A good way to picture how this can work is as follows:

If we think about the Model as being the database that our data is stored and the View as being the web browser we will displaying the data to, then we set up the Controller up as a Java program that will take the input from say a web form that the user has filled out on the browser (View) and does some stuff with the data and then sends that data on to the database, that is how MVC works.

Teaching Description:

This is a website that I built from scratch this semester. I spent a lot of time making sure that I used the MVC pattern to the best of my abilities. I coded the main functionality in PHP and learned a lot about the benefits of using this design pattern. One that I found extremely helpful was in debugging. I was able to debug much more quickly because I knew whether the problem was in my HTML or in my PHP. If it was in my PHP then I could see whether it was in the view, model, or controller of my project and find right where the bug was.

Another example of a benefit I realized was in displaying error messages. I was able to design it in a way that allowed errors to be passed from one layers on to the next layer in a very seamless manor that helped my error handling become more consistent.

Teaching Examples:

None.

Files to View:

- Model View Controller Pattern/who_borrowed_what
- Below is a link to the actual website:

Username: hen11013@byui.edu

Passwd:cs313

Or you may register as a new member.

http://php-rhenke.rhcloud.com/who_borrowed_what/login.php