

Architecture Outline

“You Might Also Like...”

Servlets

A servlet is a Java application that runs from a server and processes HTTP requests. It could run from a local server (for example a Tomcat server running on your machine, where you visit <http://localhost:8080/> to see it) or a web server, so you visit its web address to see it. You can program it directly to respond to different requests and do all the low-level stuff yourself, or you can use frameworks where all the low-level stuff is taken care of for you, which is what we will be doing.

Model-View-Controller

MVC is a design pattern that separates the three major functions:

- Model is the database data
- View is what the users see and interact with. No or minimal logic happens here (only stuff to do with what the user can see and interact with). Data entered on the view is passed to the Controller
- Controller is where the business logic happens, using input from the View and data from the Model

The reason for this is it makes it much easier to program. If you are fixing logic for having the correct user returned when logging in, you don't want to have to delicately step around the presentation layer (if the logic is alongside the presentation code), and accidentally break it when you had no intention of editing it at all.

JSF

JSF stands for “Java-Server Faces” and it is the framework we will be using so we don't need to deal with any low-level stuff.

The View files are xhtml files. You can mix normal html with JSF tags, which can be used to display information from beans. We'll also use PrimeFaces, which is just another bunch of tags you can use for more variety on your pages. You have to declare what sort of tags you are planning to use at the top of your xhtml file.

The Controller files are beans or regular Java classes. Beans are regular Java classes but with annotations that tell them they are beans. They deal with data that will be displayed or gotten from web pages, and what pages the users will be forwarded to.

The Model layer are classes that fetch data from the database.