





# Developing Fabflix



UCI - CS122B  
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# Project 2

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- ★ Check the project webpage: <https://grape.ics.uci.edu/wiki/public/wiki/cs122b-2016-spring-project2>
- ★ Make sure to understand the design diagram completely.
- ★ If something is not specified in the project specification, it is left for you to make a reasonable decision. For example, navigating to/from the shopping cart page.

# 1- Configure Tomcat's WebApps Manager

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- ★ You installed Tomcat web-server in project 1.
- ★ Now, first we need to configure Tomcat so we can view the WebApps Manager. Add the following tags to the tomcat-users.xml file:

```
<role rolename="manager"/>
<role rolename="manager-gui"/>
<user username="your_username"
      password="your_password"
      roles="manager,manager-gui"/>
```

## 2- Deploy a Tomcat Application

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- ★ Download TomcatTest.war and TomcatForm.war from project2's webpage.
- ★ Use the WebApps manager to deploy each war file.
- ★ When deployed, go to the web app directory and get familiar with the internal structure of a tomcat web application.

# 3- Learn Tomcat Servlet Basics

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- ★ Web app internal structure
- ★ Source code: `HttpServlet` lifecycle (`init()` and `destroy()` methods)
- ★ The lifecycle of a request:
  - GET and POST request methods
  - URL mapping and the `web.xml` file

# 4- Understand the Request and Response

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## ★ Different parts of a request URL:

- `request.getContextPath()`
- `request.getRequestURI()`
- `request.getPathInfo()`
- `request.getQueryString()`

## ★ Request parameters

- `request.getParameter("parameter_name");`

## ★ Response:

- `response.setContentType("text/html");`
- `PrintWriter out = response.getWriter();`

# 5- Learn How to Navigate Between Servlets

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- ★ Learn the difference between redirecting and forwarding  
<http://www.javapractices.com/topic/TopicAction.do?Id=181>

- ★ Redirecting a request

```
response.sendRedirect("/example.html");
```

- ★ Forwarding a request

```
RequestDispatcher dispatcher =  
    request.getRequestDispatcher("/new_module/exmpl.html");  
dispatcher.forward(request, response);
```

## 6- JSP

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- ★ Try the `jspTest.war` example from the website.
- ★ Why is JSP useful?
- ★ How to break the application logic between servlets and JSP files?
- ★ How to share information between Servlets and JSPs?



# 7- Cookies

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## ★ What is a Cookie?

An HTTP cookie is a small piece of data sent from a website and stored in the user's web browser while the user is browsing.

## ★ Structure:

1. Name and value
2. Attributes: (Domain and Path, Expires and Max-age, Secure and HttpOnly)

## ★ Types:

1. Session cookies
2. Persistent cookies
3. Third-party cookies
4. etc.

# 8- Session

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- ★ Check [the wikipedia page](#).
- ★ Working with session key-value pairs
- ★ Any concurrency issues?
- ★ Login/logout use cases of session
- ★ Some useful links on session and cookies:
  - [http://www.w3schools.com/js/js\\_cookies.asp](http://www.w3schools.com/js/js_cookies.asp)
  - <http://www.tutorialspoint.com/servlets/servlets-cookies-handling.htm>
  - <http://www.journaldev.com/1907/java-servlet-session-management-tutorial-with-examples-of-cookies-http-session-and-url-rewriting>