Summer Study Guide form CMPS 342 (Database Systems)
for Class Offered in Fall or Winter

I: Web Technology

HTML5, Dynamic HTML, XML, CSS (Cascaded Style Sheet)
AJAX, JSON, Web-Socket, JQuery,
Resource: "W3Schools" – online free courses.

II: Client-side Scripting language

JavaScript Language
Resource: "W3Schools" – online free courses.

III: Application Development Platforms (or IDE – Integrated Development Environment)

Bootstrap: The most popular HTML, CSS and JS Framework for Web-based applications for Mobile and desktop computers, Downloadable from Internet.

NetBeans: An IDE supporting multi-language application for web, mobile and regular devices and computers.

Microsoft Visual Studio.Net: Free downloadable internet,


IV: Server-Side Scripting Language

Java, C# or PHP

Resource: Digital books on CSUB library

Java – Java : How to Program by Deitel, published by Pearson
C# – Any book that has database connectivity.

Notice that
• I prefer Java or C# since it is hard to connect from PHP to Oracle database.
• When learning Java/C#, study the following advanced topics
  o Multi-threading and synchronization (monitor)
  o Network programming (Sockets) and Remote Method Invocation (RMI).
  o Database connectivity

V: Other Requirements

1. Get familiar with a company which belongs your relatives, friends or which you have worked for.
2. Form a team of two members for one project.
3. Integrated Development Environment (IDE):
a. NetBeans is a good tool for building applications for traditional and web-based applications and apps for devices in Java, C/C++, PHP, coming in with Apache HTTP server.

b. Microsoft Visual Studio.NET is also a good and popular tool to develop application. Combined with IIS (Internet Information Server), you can learn and develop web-based application.

Dr. Wang, May 20, 2016 updated.