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,

Report Generator: Report generating tools come with NetBeans (Jasper report), MS Visual Studio Dot Net, and Google company.

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 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.