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Module 3

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Apache Core Modules vs. Standard Modules

1. Apache HTTP server has features that are always available which are called core features. For each feature: Select the 5 features that you feel are the most important.
   * Describe each feature in 1 or more sentences.
   * Describe in 1 or more sentences why this feature is important.
     1. ServerRoot: The directive sets the directory in where the server lives. It will contain subdirectories conf/ and logs/. I believe this feature is important because it is good to know where the server lives in case of needing to locate it.
     2. <Limit> Directive: The purpose is to restrict the effect of the access controls to the nominated HTTP methods. For other methods, the access restrictions that are enclosed in the <Limit> bracket will have no effect. This is important to have restrictions for better control over abnormal behavior, which may be useful for avoiding some forms of service attacks.
     3. AllowOverride: Types of directives that are allowed in .htaccess files. When the server finds an .htaccess file, it needs to know which directives declared in that file can override earlier configuration directives. This is important in case of needing to allow use of the directives controlling document types or directory indexing for instance.
     4. DocumentRoot: This directive sets the directory from which the httpd will serve files. It is important since it is what forms the main document tree visible from the web.
     5. Error: The abort configuration parsing with a custom error message. If an error can be detected, this directive can be used to generate a custom error message. It is important to know what kind of error is happening in order to debug.
2. Apache HTTP server can be configure to have other features. Select 5 features that you want to include in your server. For each feature:
   * Describe each feature in 1 or more sentences.
   * Describe in 1 or more sentences why this feature should be in your web server.
     1. Mod\_heartbeat: Sends messages with server status to the frontend proxy. This is useful along with the next feature I list to make sure the server is working, since unlike frontend work it is difficult to visibly see if everything is working properly.
     2. Mod\_log\_config: Logging of the requests made to the server. I believe this is useful in the beginning to make sure it is accurately working.
     3. Mog\_log\_dedbug: The additional configurable debug logging. I will be using this in order to track what has happened in order to progress.
     4. Mod\_proxy\_html: It rewrites HTML links in to ensure they are addressable from Client’s networks in a proxy context. This is important and useful so that the HTML links can be readable.
     5. Mod\_request: It filters to handle and make available HTTP request bodies. I have used the option in the past before for requesting another HTML file that served as a different webpage.
3. Explain in 3 or more sentences why and how you will use [virtual hosting](http://httpd.apache.org/docs/current/vhosts/) in an Apache HTTP server.
   * I will be using virtual hosting to have multiple sites. Currently I do have a personal website where it has links to redirect you elsewhere. In the future I can create websites for others with their own domains and this can be possible with virtual hosting. Another idea is to have another site for myself serving as a project, for instance, launching a small game on a website like minesweeper.