**Web Systems and Technologies**

**Assignment – 1**

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**Comparing any two web servers (features, configuration files, etc) one of which is Apache Tomcat.**

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| **Apache Tomcat** | **Nginix** |
| It is an open-source web server developed by the Apache Group.  Released on 25 March 1999 | It is an open-source web server developed by Nginix.inc.  Released on 4 October 2004 |
| Compatible platforms:  Unix, Linux, Windows | Compatible platforms:  Unix like systems, linux and has limited support on Windows |
| It is an application server and web server. It has an application container that can server serve Java Web applications( servlets). It can also server static content ( html, images) | Designed to work both as a web server and a proxy server. |
| Uses a multi-threaded approach for processing client requests  A single thread handles only a single connection | Uses an event-driven asynchronous approach for processing requests  Multiple connections can be handled by a single thread in Nginix |
| Modules are dynamically loaded and unloaded  This makes Tomcat very flexible | Dynamic content cannot be loaded natively in Nginix |
| Easy customization possible as writing of modules can be done easily | Any new modules need to be compiled first into Nginix binary by the admin |
| Apache Tomcat server is good in handling Java servlets. But performance in dealing with static content is low | Nginix can handle both static and dynamic content concurrently using lesser memory than Apache Tomcat |
| Apache tomcat is typically used to host Java applications. Some of the important websites ( applications) hosted by Tomcat are [WalMart.com](http://www.walmart.com) , [The Weather Channel](http://www.weather.com), [WebShots](http://www.webshots.com) etc. | Nginix typically used to host javascript based ( NodeJS) applications. Some of the popular websites using NGIXN are [Netflix.com](http://netflix.com/), [Pinterest.com](http://pinterest.com/), [Airbnb.com](http://airbnb.com/), [SoundCloud.com](http://soundcloud.com/) etc. |
| The codebase for apache tomcat is very high but security is low | Codebase for Nginix server is low and the security is high |
| **Configuration files** | |
| Main Apache configuration file is located at /opt/ /tomcat/conf/server.xml | Every nginix configuration file is found in  /etc/nginix directory |
| On starting the server log files will be stored in  /opt/ /tomcat/logs  The main log file is catalina.out where error messages are saved | The main configuration file is /etc/nginix/nginix.conf |
| Detailed documentation of Apache Tomcat can be found  at  https://tomcat.apache.org/tomcat-8.5-doc/index.html | Detailed documentation of nginix can be found at  https://nginx.org/en/docs/ |