Swap Ejercicios

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Ejercicio T1

Apache

Apache is often chosen by administrators for its flexibility, power, and widespread support. It is extensible through a dynamically loadable module system and can process a large number of interpreted languages without connecting out to separate software.

Apache provides a variety of multi-processing modules (Apache calls these MPMs) that dictate how client requests are handled. Basically, this allows administrators to swap out its connection handling architecture easily. These are: **mpm_prefork, mpm_worke, mpm_event**

Nginx

Nginx has grown in popularity since its release due to its light-weight resource utilization and its ability to scale easily on minimal hardware. Nginx excels at serving static content quickly and is designed to pass dynamic requests off to other software that is better suited for those purposes. Nginx is often selected by administrators for its resource efficiency and responsiveness under load. Advocates welcome Nginx's focus on core web server and proxy features.

Thttpd

Thttpd is an open source software web server, designed for simplicity, a small execution footprint and speed. Thttpd is single-threaded and portable.

Node.js

Node.js is an open-source, cross-platform JavaScript runtime environment for developing a diverse variety of server tools and applications. It allows the creation of Web servers and networking tools using JavaScript and a collection of modules that handle various core functionality.

Ejercicio T2.2

Some Useful Frameworks in Java language **:**

Activiti : Workflow engine written in Java that can execute business processes described in BPMN 2.0.

Android Plot : Androidplot is a library for creating dynamic and static charts in your Android app.

Apache Accumulo : Distributed key/value store that provides robust, scalable data storage and retrieval.

Apache ActiveMQ : Messaging and Integration Patterns server.

Apache OpenNLP : Java machine learning toolkit for natural language processing (NLP).

DirectWebRemoting : library that enables Java on the server and JavaScript in a browser to interact and call each other as simply as possible.

Google Web Toolkit (GWT) : Set of tools that allows web developers to create and maintain complex JavaScript front-end applications in Java.

Java Media Framework : The Java Media Framework (JMF) is a Java library that enables audio, video and other time-based media to be added to Java applications and applets.

JavAssist : Library providing a means to manipulate the Java bytecode of an application.

Javers :JaVers is a lightweight java library for auditing changes in your data.

Some Useful Libraries in Java language **:**

Java Advanced Imaging JAI : A set of interfaces that support a high-level programming model allowing to manipulate images easily.

Java Data Objects JDO : A specification of Java object persistence.

JavaHelp : A full-featured, extensible help system that enables you to incorporate online help in applets, components, applications, operating systems, and devices.

Java Media Framework JMF : An API that enables audio, video and other time-based media to be added to Java applications and applets.

Java Naming and Directory Interface JNDI :An API for directory services.

Java.lang

Java.util

Java.io

Java.net

Java.security

Java.sql

Java.swing

Some Useful Frameworks and Libraries in C++ language **:**

Advanced Simulation Library is free and open source hardware accelerated multiphysics simulation software with an OpenCL-based internal computational engine.

Armadillo is a C++ linear algebra library (matrix and vector maths), aiming towards a good balance between speed and ease of use. It employs template classes, and has optional links to BLAS and LAPACK. The syntax (API) is similar to MATLAB.

Blitz++ is a high-performance vector mathematics library written in C++.

MLPACK is an open-source library for machine learning, exploiting C++ language features to provide maximum performance and flexibility while providing a simple and consistent API

MTL4 is a generic C++ template library providing sparse and dense BLAS functionality. MTL4 establishes an intuitive interface (similar to MATLAB) and broad applicability thanks to Generic programming.

NTL is a C++ library for number theory**.**

Trilinos is an effort to develop algorithms and enabling technologies for the solution of large-scale, complex multi-physics engineering and scientific problems. It is a collection of packages.

Ejercicio T2.3

Analyze the load of Subsystem:

Load testing is performed to determine a system's behavior under both normal and anticipated peak load conditions. It helps to identify the maximum operating capacity of an application as well as any bottlenecks and determine which element is causing degradation. Load and performance testing analyzes software intended for a multi-user audience by subjecting the software to different numbers of virtual and live users while monitoring performance measurements under these different loads. Load and performance testing is usually conducted in a test environment identical to the production environment before the software system is permitted to go live.