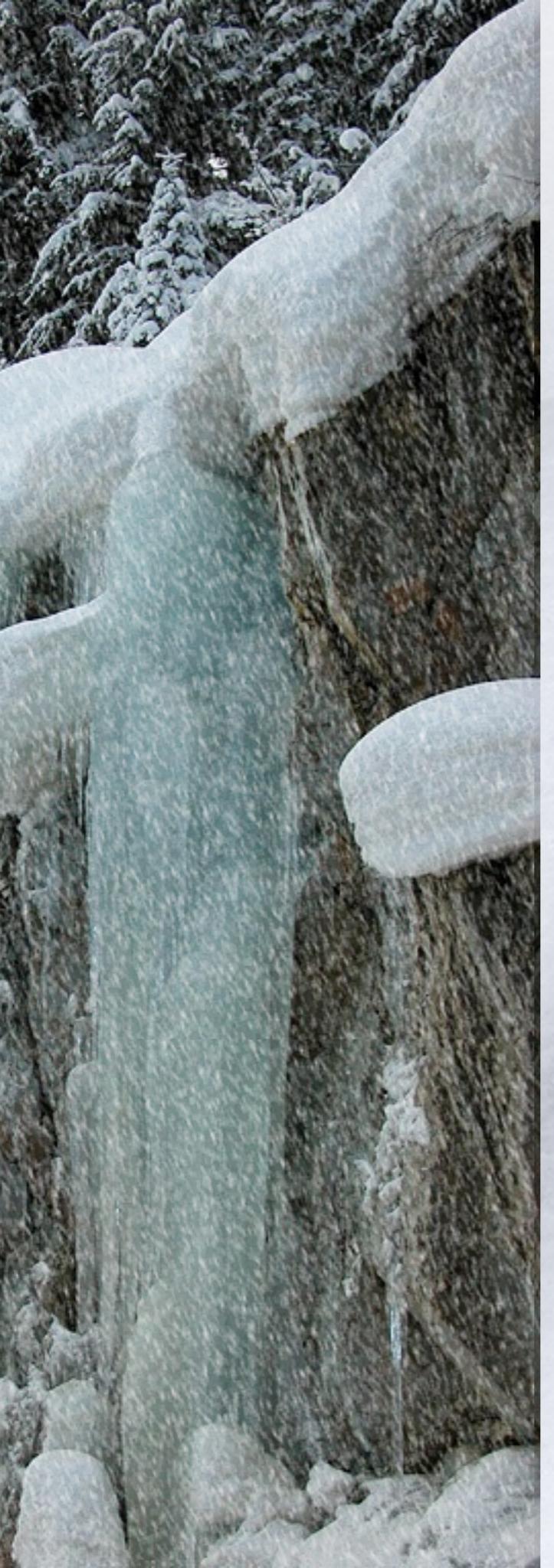


Programming the World Wide Web

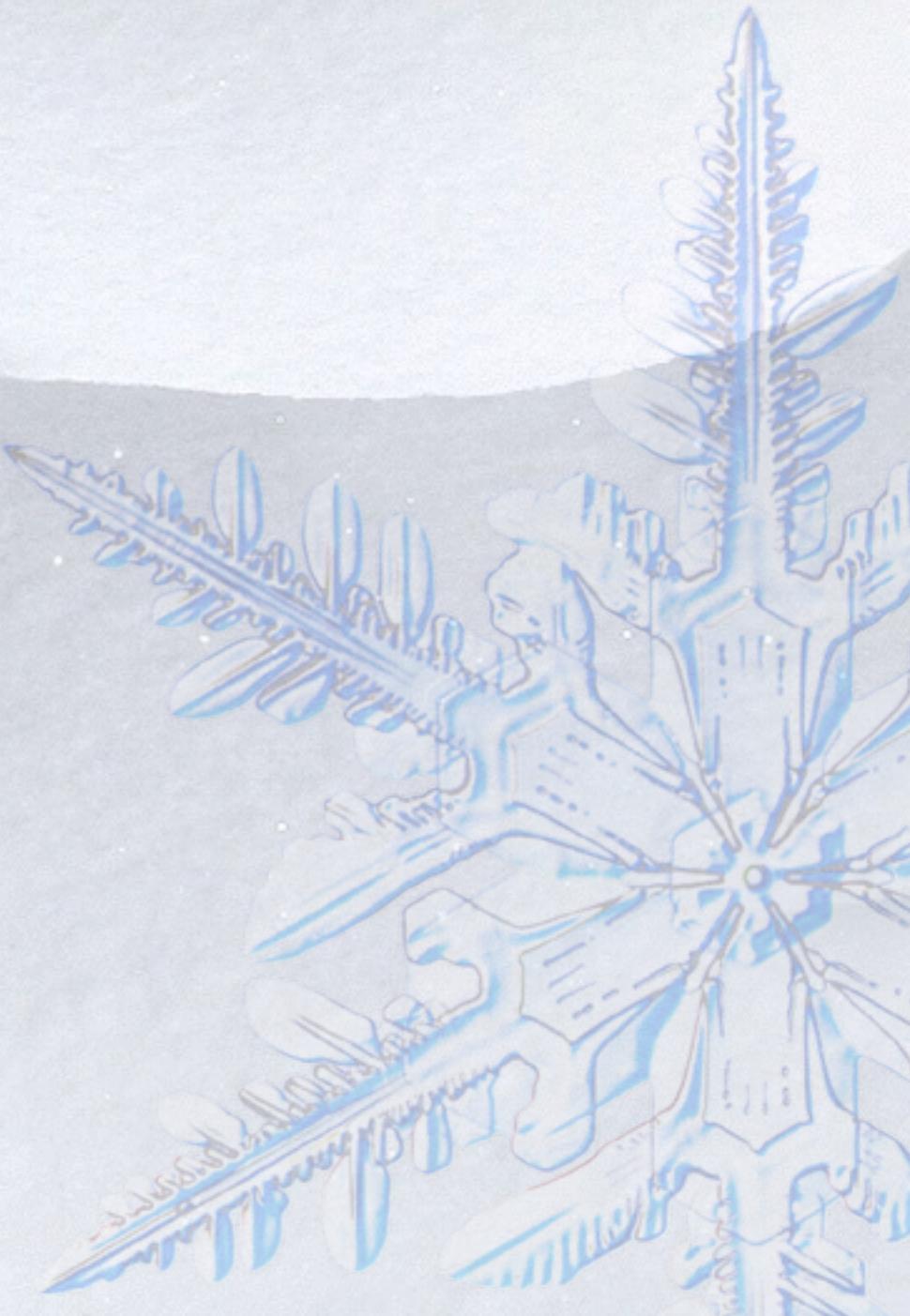


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Outline

- ❖ **Introduction**
 - ❖ **LAMP**
 - ❖ **References**
- 

Course Goals

- ❖ A general understanding of the fundamentals of the Internet and WWW
- ❖ Knowledge and experience with the major web technologies
- ❖ Introduction to terms and acronyms
- ❖ Insight into what constitutes a well designed, usable web application

Course Contents

Web Programming

- * HyperText Markup Language (HTML) for authoring web pages
- * Cascading Style Sheets (CSS) for supplying stylistic information to web pages
- * JavaScript for creating interactive web pages
- * Asynchronous JavaScript and XML (Ajax) for enhanced web interaction and applications
- * PHP Hypertext Processor for generating dynamic pages on a web server
 - Structured Query Language (SQL) for interacting with databases

Optimization

- * http
- * web server

Course Arrangement

 3*10 weeks

- * Teaching
- * Experiments
- * Homeworks
- * Bonus

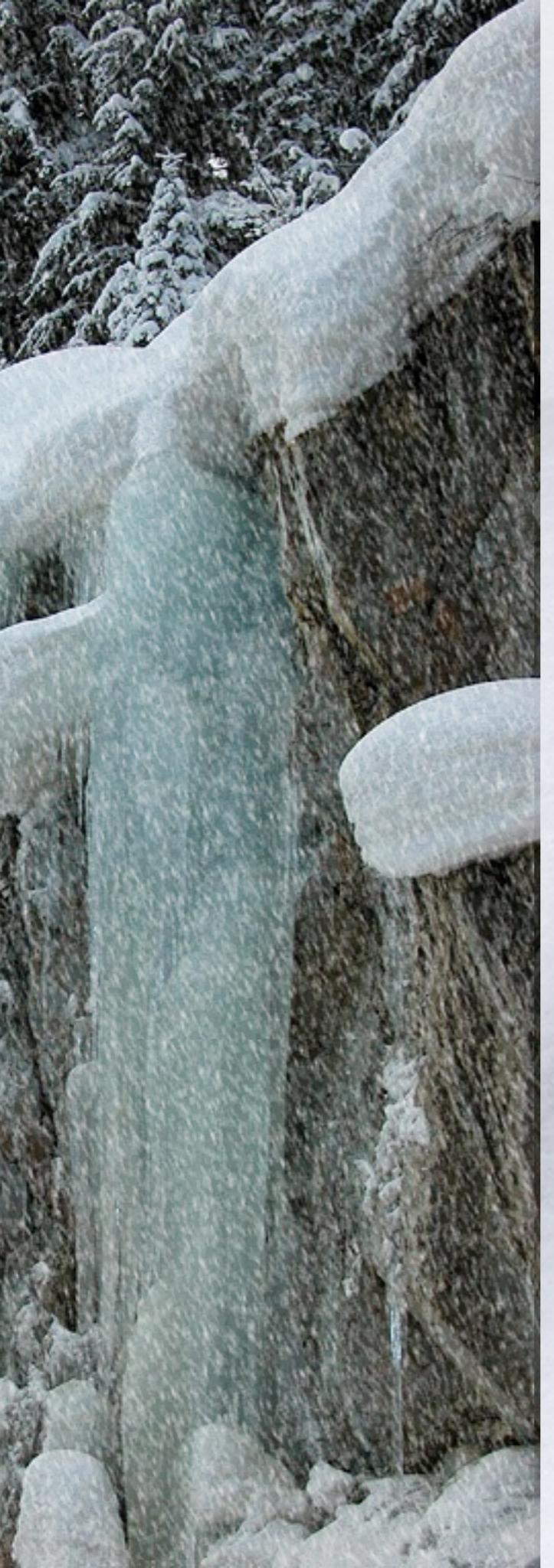
Assessment

Coursework - 40%

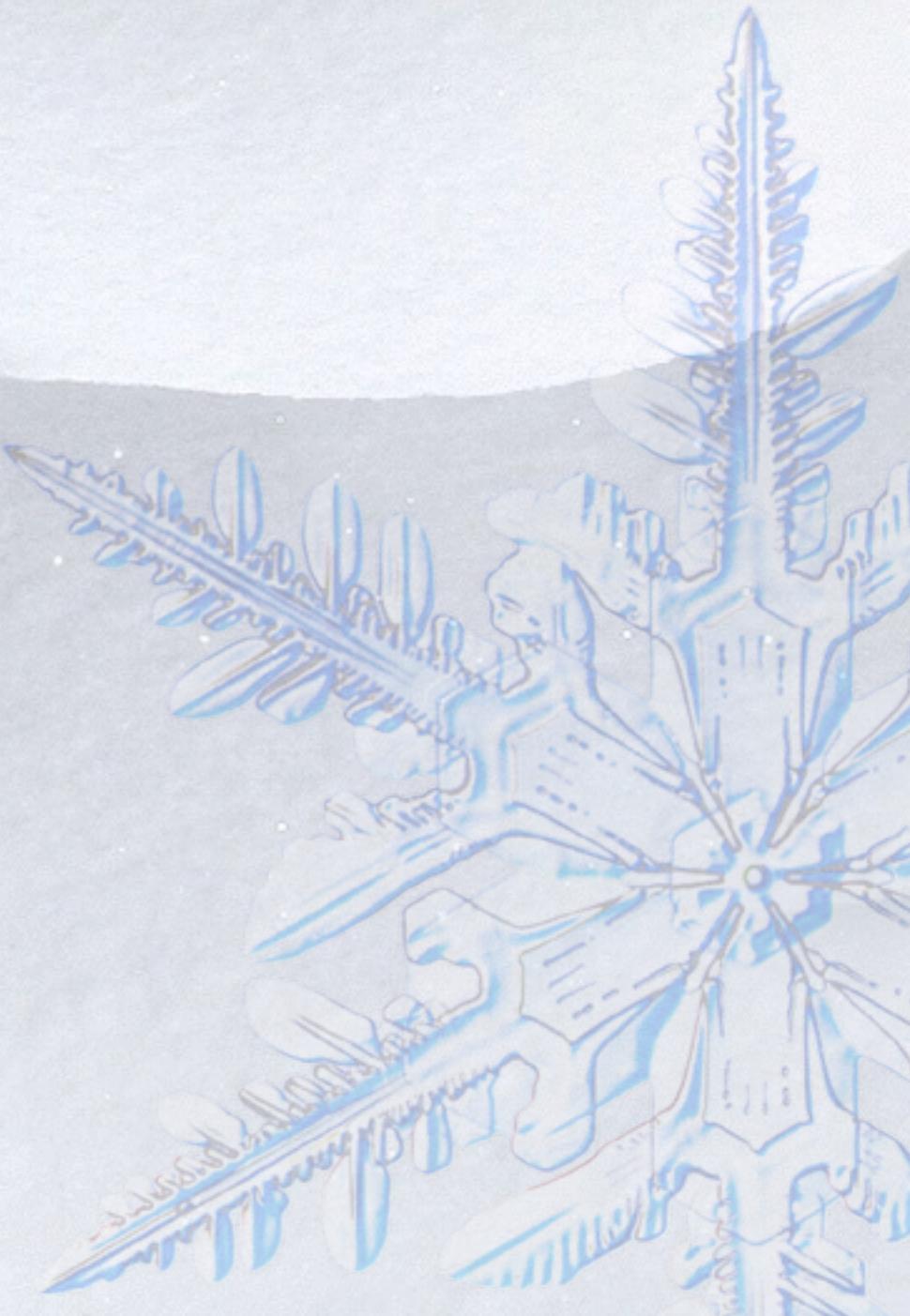
- * Experiments + Homeworks
- * Web application programming + report
- * Mark + feedback

Exam - 60%

- * Two hour written examination



Outline

- ❖ Introduction
 - ❖ LAMP
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- 

LAMP

- ❖ LAMP stands for Linux-Apache-MySQL-PHP.
- ❖ Instead of PHP, Perl and Python are also used.
- ❖ This is a free and lightweight alternative to “WISA,” Windows-IIS-SQL Server-ASP (and now, ASP.Net).

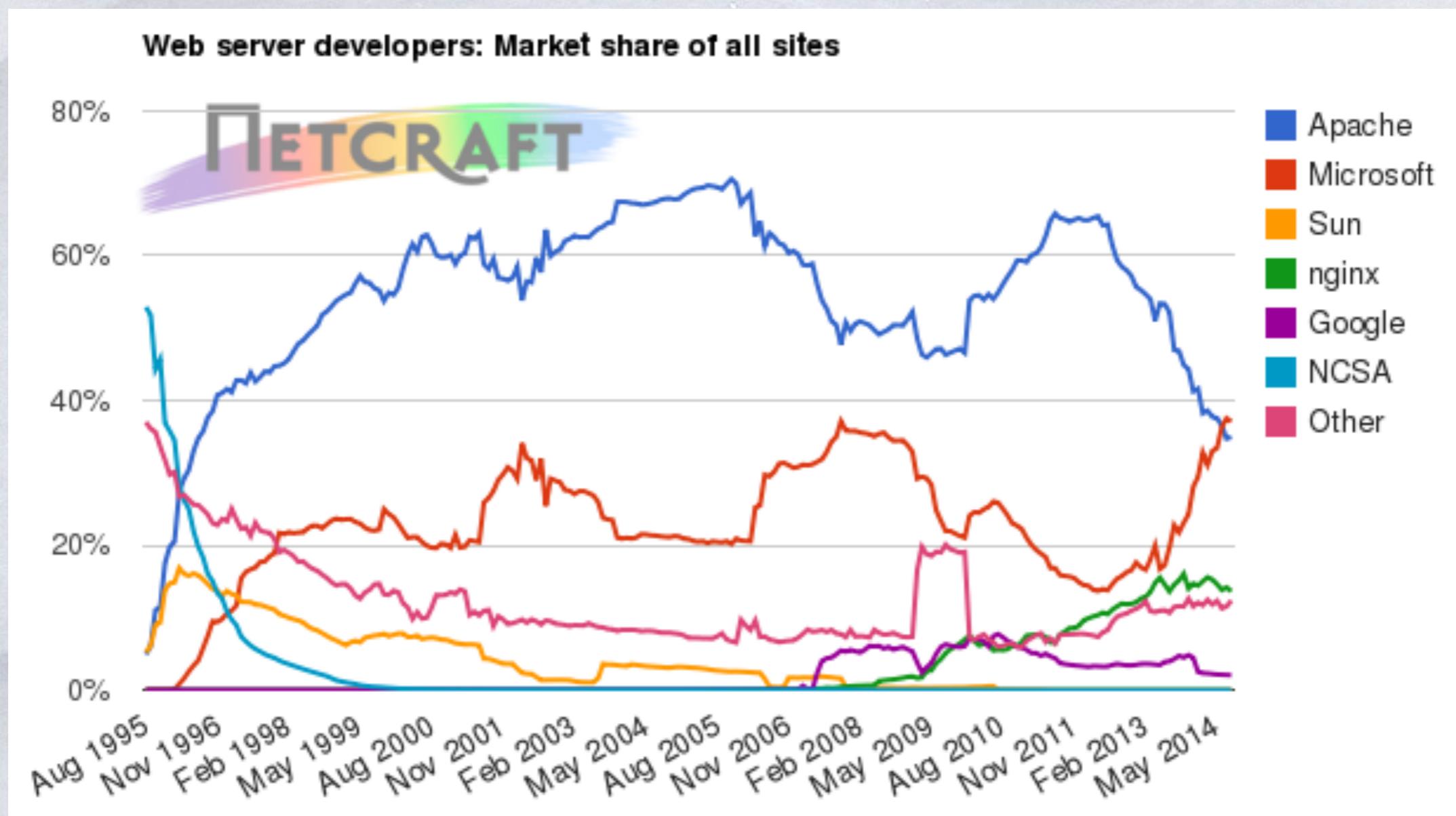
LAMP: System

Linux/Unix

- * Red Hat Enterprise Linux
- * Suse
- * Debian
- * FreeBSD
- * Ubuntu
- * Yellow Dog Linux(PS3)
- * Mac OS

LAMP: Server

Apache

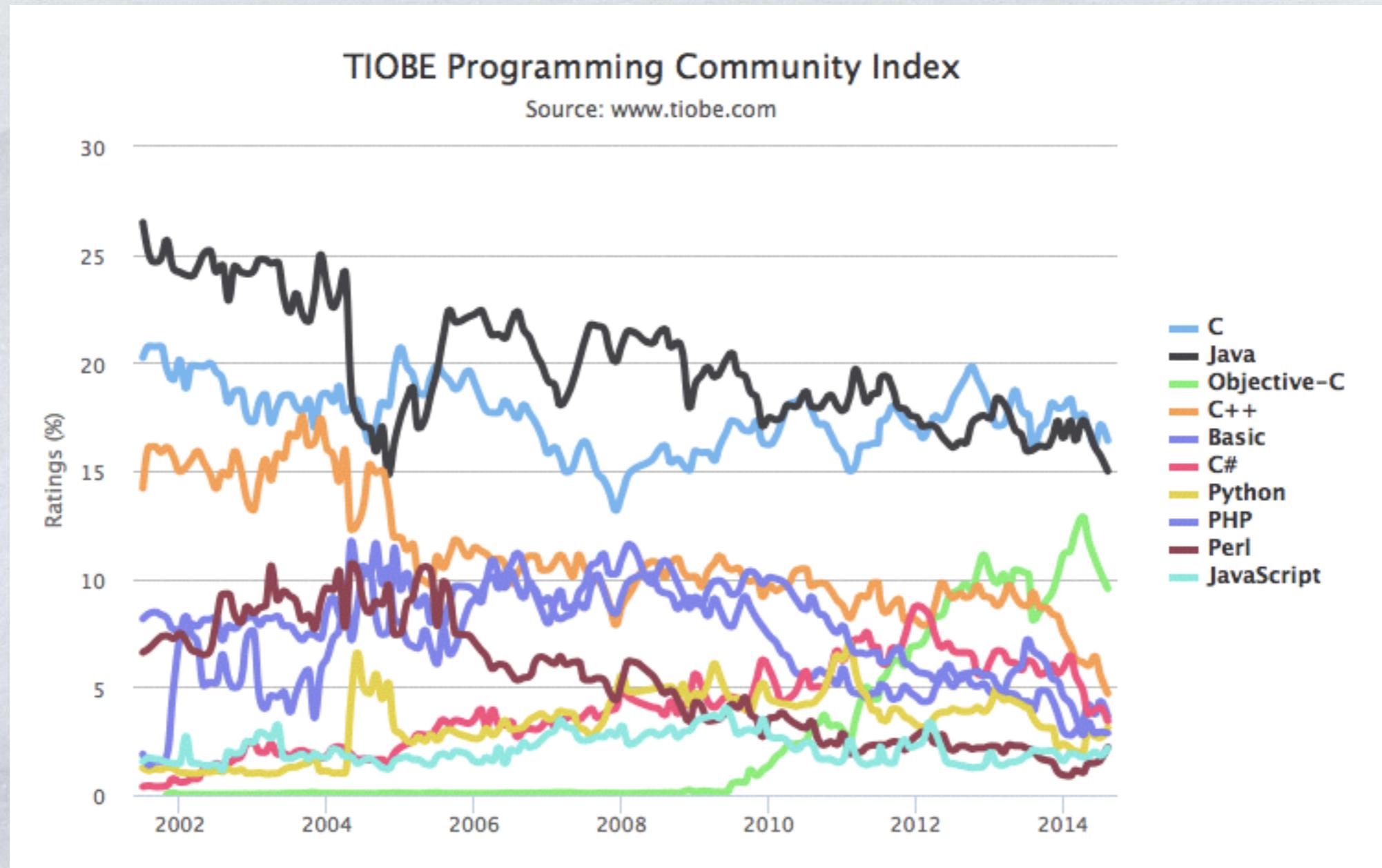


Source: <http://news.netcraft.com/archives/2013/08/09/august-2013-web-server-survey.html>

LAMP - MySQL

- ❖ Fast, free, stable database
- ❖ Syntax is similar to Oracle
- ❖ Many of the same features as Oracle
- ❖ Production version still missing subqueries, stored procedures, and triggers
- ❖ Frequently used in conjunction with Linux, Apache, and PHP

LAMP: Script



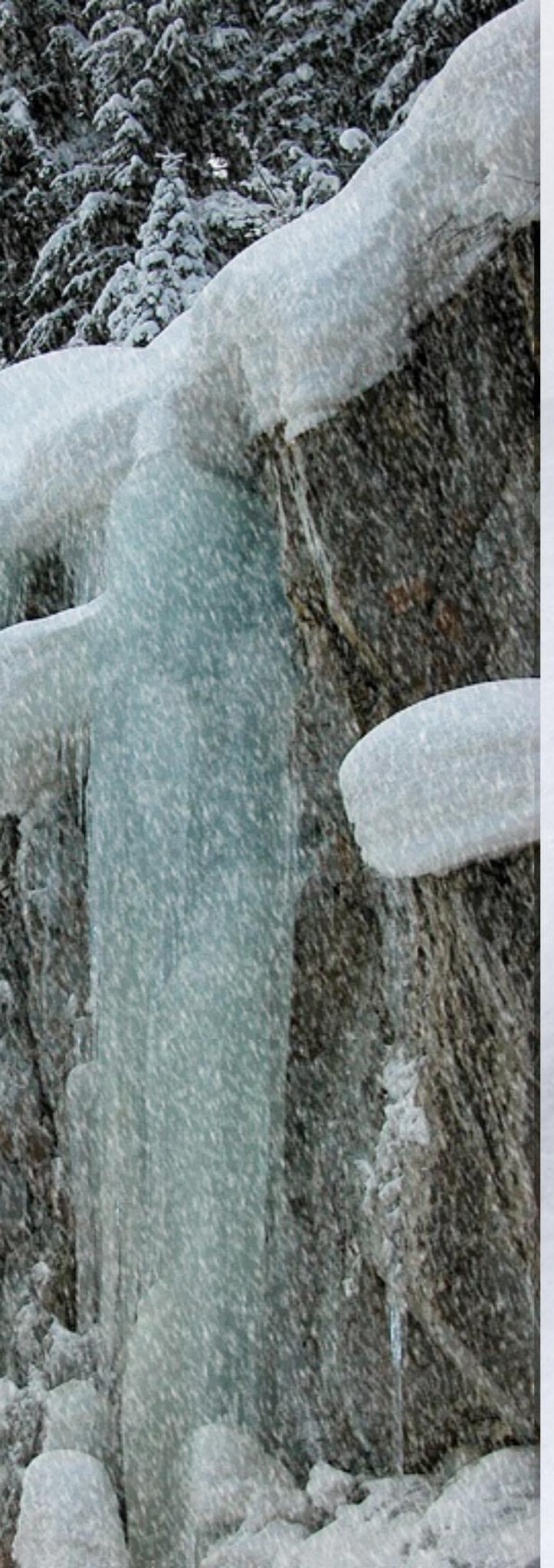
Source: <http://www.tiobe.com/index.php/content/paperinfo/tpci/index.html>

Samples

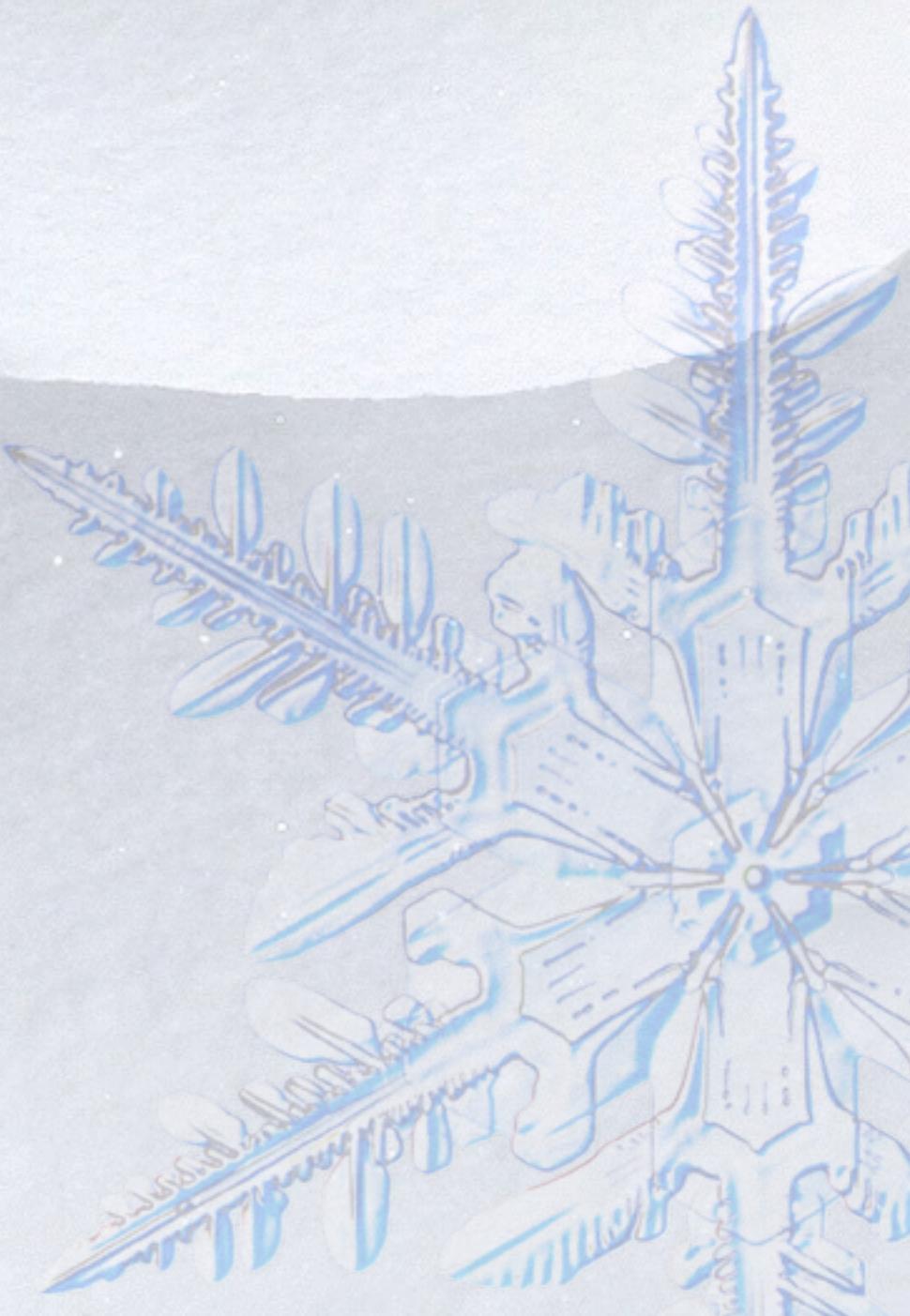
	System	Server	Storage	Script
Yahoo	FreeBSD + Linux	Apache	MySQL	PHP
Facebook	FreeBSD	Apache	MySQL + Memcached	PHP
Wikimedia	Linux	Apache + Lighttpd	MySQL + Memcached	PHP
Flickr	Redhat Linux	Apache	MySQL + Memcached	PHP + Perl
Sina	FreeBSD + Solaris	Apache + Nginx	MySQL + Memcachedb	PHP
Audiogalaxy	Linux	Apache	MySQL	PHP
Friendster	Linux	Apache	MySQL	PHP + Perl
YouTube	Suse Linux	Apache + Lighttpd	MySQL	Python
Mixi.jp	Linux	Apache	MySQL + Memcached	Perl
TypePad	Linux	Apache	MySQL + Memcached	Perl
liveJournal	Linux	Apache	MySQL + Memcached	Perl

Comparision

	MS .NET	SUN J2EE	LAMP
System	Windows 2008/2003	跨平台	跨平台
Server	IIS 6.0+	Tomcat/JBOSS/Resein/ WebLogic/WebSphere	Apache/IIS/Lighttpd/ZWS/ Nginx
Script	C#/VB.net	JSP	PHP/Perl/Python
运行模式	ISAPI		Apache Module/CGI/ FastCGI/ISAPI/
进程/线程模型	多线程	多线程	多进程/内核支持多线程
源代码	编译	编译	解释/编译成OPCODE
Framework	.Net Framework	Struts/EJB/Webwork2/ Tapstry/JSF	Zend Framework/Cake PHP/ ThinkPHP
Cache		EhCache/OSCache/ JBossCache	Memcached
DB	SQLServer /Access	Oracle	MySQL/PostgreSQL/Oracle/ SQLite



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Text books and notes

 Slides available from:

* TSS

 Recommended Text:

- * Web程序设计 (Programming the World Wide Web) , 5rd edition, Robert W. Sebesta, 2009, 清华大学出版社
- * PHP和MySQL Web开发, 第四版, Luke Welling, Laura Thomson, 2009, 机械工业出版社

Additional Resources

- * **Web Style Guide, 2nd Edition**
* <http://www.webstyleguide.com/index.html>
- * **W3C Documentation**
* <http://www.w3.org/>
- * <http://www.w3schools.com/>
- * **More.....**

Software

❄ Zend Studio

❄ Aptana Studio

- * 基于Eclipse的Web Front-end IDE。

❄ Chrome

- * 便于调试，与标准兼容性好，Web开发的首选浏览器。

❄ Firebug

- * 调试HTML、CSS、JavaScript的利器。

❄ Firecookie

- * 调试Web应用中的cookie。

❄ XAMPP

- * Apache + PHP + MySQL。
- * <http://www.apachefriends.org/en/xampp.html>

Thanks!!!

