

ICE @ Georgia Tech: AP Practice Exam

Software Installation and Maintenance Guidelines

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CS3911 Team II

Introduction

This document details the necessary instructions for installation and maintenance of the AP Practice Exam system developed for the ICE @ Georgia Tech by the Summer 2005 Senior Design development team.

References

This document heavily relies upon documentation for the underlying web service and database server platforms on which the AP Exam system is implemented. Specific installation, configuration, and maintenance procedures are not repeated for these packages herein, as these procedures may change in newer versions of the software. For more information on the platforms referenced herein, please access the following resources:

Apache HTTP Server Project	http://httpd.apache.org/
PHP Hypertext Processor	http://www.php.net/
MySQL Database Server	http://www.mysql.com/products/mysql/

Installation Materials

The following files comprise the AP Exam system:

apexam.zip	static and dynamic HTML, CSS, and PHP source code
apexam.sql	SQL format database structure and data

The following software packages are required components of the AP Exam system, and the listed versions or newer versions of each package are recommended or required for proper functionality. Newer versions are recommended for enhanced server security and stability, though release notes should be consulted for any backwards-compatibility issues.

Apache HTTP Server	1.3.33
PHP Processor	4.4.0
MySQL Server	3.23.44

Installation Procedures

1. Download and install Apache HTTP Server according to the instructions provided with the distribution.
2. Download and configure PHP according to the instructions provided with the distribution. Be certain to follow the instructions with regard to the version of Apache installed in step 1.
3. Download and install MySQL Server according to the instructions provided with the distribution.

4. Configure a fully-privileged user account in MySQL for use by the system. This user should have access to create and fully modify databases, though these activities should be restricted to being performed from the local machine, for enhanced security. Consult the documentation accompanying MySQL server or your system DBA for more detailed instructions.
5. Using the user account created in step 4, create an empty database for use by the system. The suggested database name is "apexam". Import the data contained in the provided database file "apexam.sql" into this database. For more information on importing this data, please see the MySQL documentation.
6. Unpack the system code distribution "apexam.zip" into the "htdocs" directory installed with Apache Server. For more information on this directory, see the Apache Server documentation.
7. Locate and edit the file named "util.php" in the htdocs directory, and set the three following fields to the appropriate values. These fields are located near the top of the file:

\$dbname	the name of the database created in step 5
\$dbuser	the username of the account created in step 4
\$dbpass	the password of the account created in step 4
8. Verify the functionality of the system by accessing "http://127.0.0.1/apexam/" via a web browser from the server system. If any errors are encountered, consult the documentation for the failed system component.

Maintenance

The system should require no maintenance other than regular updates to the server packages listed previously in this document. Keeping these packages up to date will ensure that the server's security and stability are maintained. Whenever upgrading system components, ensure that the system is fully tested for errors, as incompatibilities are occasionally induced by newer software versions. If this situation occurs, it is at the discretion of the system administrator whether or not to use the newer version or the older version.