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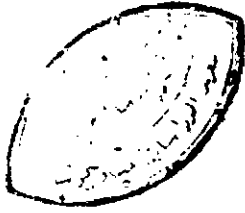
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**A Thesis Submitted to the
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To my wife



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ABSTRACT

This thesis aims at analyzing and designing a three-tier, web-based medical information system as well as testing the performance of some of the HTML-embedded server scripts when querying some of the industry standard database management systems based on different situations derived from this system.

This system contains information about three major medical subjects: Egyptian drug index, health information for non-professionals, and medical service directory. Analysis and design of the system with its contained databases were done by the agreed upon methods and suitable tools were chosen for each tier:

This system introduces new information, insures the availability and updating of information and achieves better performance than non-computerized systems. It also solves the problem of analyzing drug interactions. It enhances the client compatibility and reduces the download time.

Active Server Pages (ASP) Java Server Pages (JSP), PHP Hypertext Processor (PHP) and ASP.NET were used in coding Web pages to test their performance in connecting, retrieving and displaying information from Microsoft Access 2000, Microsoft SQL Server 2000, Oracle 9i and MySQL 3.25 DBMS. The tests record the response time at the web server as a sign of performance.

The study revealed that PHP was the best performing script with Access DBMS while ASP.NET was the best with SQL Server. ASP.NET was as good as JSP with Oracle, better than other scripts. ASP.NET, JSP and PHP were equally good with MySQL under Windows while PHP was better than JSP under Linux.

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