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COLLEGE OF GRADUATE STUDIES AND ACADEMIC ADVANCEMENT

Comparative Study between PHP & ASP.NET

A Thesis

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Advancements

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Abstract

With performance, Maintenance, user friendly, and scalability requirements for enterprise applications rapidly increasing, choosing the best programming language in today's competitive environment remains imperative. programming language are improving on every front, but enterprises continue to face the arduous but necessary task of evaluating solutions to find the best fit for their unique needs. The research tends to analyse and compare the performance of the two most popular dynamic scripting languages used in web development, the PHP and ASP.NET. The comparison is based on a set of comparison criteria and frameworks also testing the performance of the two technologies using software called WAPT. we measure the performance of these two languages using one application benchmarks, e-commerce. This similarity helps to establish realistic comparison of applications performance Then compare the test results.

المستخلص

مع الأداء، الصيانة، سهولة الاستخدام ، ومتطلبات تطوير تطبيقات الويب يتزايد وبسرعة كيفية اختيار أفضل لغة برمجة في بيئة اليوم التنافسية حيث لا تزال مشكلة وذلك بالرغم من انتشار عدد من لغات البرمجة لذلك تستمر المؤسسات في مواجهة مهمة شاقة ولكنها ضرورية لتقييم الحلول لإيجاد أفضل لغة برمجة تتناسب مع احتياجاتهم المختلفة يقدم هذا البحث تحليل ومقارنة أداء اثنين من لغات البرمجة الديناميكية الأكثر استخداما في تطويرتطبيقات الويب وهيASP.NET & PHP. وتستند المقارنة على مجموعة من معايير واطر العمل أيضا هناك اختبار عملي باستخدام برنامج يسمى WAPT يقيس أداء هاتين اللغتين باستخدام نموذج عمل واحد هو التجارة الإلكترونية. هذا التشابه يساعد على وضع مقارنة دقيقة في أداء التطبيقات. ثم مقارنة نتائج الاختبار

1.1 Introduction

World Wide Web is growing very fast and more companies, research institutes and universities are presenting their contents on the Internet. As .Net and PHP are so much popular platforms and they have most Market share we compare their correspondence web technologies, ASP.NET and PHP . Nowadays there are different papers or forums that have topics comparing Microsoft technologies with none Microsoft technologies Most of these comparisons are done by non-science societies and groups. Usually they have defended their popular technology without enough references and scientific comparison. on the other hand there are some papers that belongs to a community that support special vendor, so they may not consider all features of the other side technology to compare because of their skills or their interests. We tried to avoid this And to provide a comparative study of neutral depending on a set of criteria, such as performance , cost , scalability , user friendly and ease of maintenance , ... etc, as well as explain the difference between the two languages also we did practical test on the two applications alike, one by php and the other by ASP.NET, to provide accurate results about the quality of performance

1.2 Research Questions

PHP & ASP.NET are the most common technology for developing application most of developers confused and uncertain about the technology to be used for developing their applications

Since different problems required special technology, this research tries explore the above mentioned techniques and investigate the advantages and disadvantages of each one. It also demonstrate each techniques, therefore the research question are break down into two sub questions as follows.

a. What are the PHP and ASP.NET technology?

b. How can these technologies be applied?

c. What are the differences between the two technologies?

1.3 Research Objectives

The aim of this thesis is answer the research questions, there is the need to formulate the objectives in clear, measurable and achievable terms Therefore the objectives of this thesis are:

    a) To provide clear understanding of PHP and ASP.NET and difference between them

b) To apply practical application of the PHP & ASP.NET

c) To compare between the two technologies.

1.4   Methodology

This thesis compares the performance of dynamic web scripting languages used for web application development. The work is divided into 2 phases. In Phase I, A comparison between the two languages, based on a set of criteria such as performance, cost , ease of maintenance, support and Resources . In phase II The establishment of two sites identical web applications was developed i.e. ecommerce website (applications to electronic devices online) in PHP and ASP.NET. and automated test was conducted to determine and analyze the performance of Applications developed both in PHP and ASP.NET. This similarity helps to establish realistic comparison of applications performance. The applications' performance is measured with help of software called WAPT. WAPT provides an environment for load, stress and performance testing of web sites and applications with web interface. It is used primarily for testing websites, web servers and intranet applications. It is used to test and analyze application.

1.5   Thesis Organization

The research organized as follows:

a.   Chapter Two provide a background about PHP & ASP.NET

b.   Chapter three provide a comparison criteria and study results between PHP and ASP.NET and show similarities and differences between them.

c.   Chapter Four provide two apps by PHP & ASP.NET (E-commerce)after that check them by software performance Known as wapt.

Chapter five conclusions the thesis and present a recommendations and future studies.