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CIT 4302: Advanced Web Programming

Introduction

With the growing use of Internet and web Technologies in various critical applications, it is important for Bachelor of Science in Information Technology and Bachelor of Technology in Information students to gain experience in developing multi-tier and Service oriented Web based applications. These applications provide access to data and services from a remote server, which may in turn access databases distributed across the enterprise network over the Internet. The fact that the internet and the web has become the next-generation computing platform makes the course quite important and relevant to these student's curriculum.

Contact Hours: 45 hours

Prerequisites: CIT 4103 Introduction to Web Programming, CCI 4201 Database Systems

Purpose: *This unit provides the skills to plan and create multi- tier applications as web services based on service-oriented architectures.*

Expected Learning Outcomes:

At the end of this unit of study the student should be able:

- i. Distinguish between a web application, a web service and Service Oriented Architecture
- ii. Classify the various web programing and application development platforms
- iii. Write simple CRUD scripts using PHP and MYSQL
- iv. Setup and configure an MVC development environment using a suitable PHP software framework

Course Plan

Week	Topic	Sub Topics
1	Introduction to: Web Applications	<ul style="list-style-type: none">• Web application• Web services• Service oriented architecture
2	Web app development platforms	<ul style="list-style-type: none">• PHP and MYSQL• Ruby and Rails• Java and Springs• ASP, C# and razor VIEW• Laravel PHP framework
3	Introduction to PHP	<ul style="list-style-type: none">• Variables; data,types;arrays;functions;loops;conditional statements; object oriented PHP:
4	PHP Form handling	<ul style="list-style-type: none">• Form creation• Form validation• Form submission
4	CAT 1	<ul style="list-style-type: none">• Covers topics 1-4
5	PHP-MYSQL connection and Selection	
6	PHP-MYSQL-Insert, Update and Delete	
7	PHP-MYSQL prepared statements	
8	Laravel-PHP framework installation and setup	
9	CAT 2	<ul style="list-style-type: none">▪ Covers topics 5-8

Course Assessment

Lab Exercises: 10 %
Project: 10 %
CAT: 10 %
Final Exam: 70 %