



אוניברסיטת בן-גוריון בנגב
הפקולטה למדעי הטבע - המחלקה למדעי המחשב
סמסטר א' תשס"ט

סילבוס קורס

שם הקורס: פיתוח שרותי רשת בסביבת SOA

מס' קורס: 202-1-5311

סוג קורס: בחירה
נק"ז: 2.0

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מטרת ונושא הקורס

In the recent years, the web has become more than just a medium for occasional browsing. Advanced technologies make it possible to publish services on the web and use them programmatically. Programmers nowadays can combine services together into a mesh-up application and implement processes across the web. Web technologies have become the base for large scale integration.

The goal of this course is to discuss the technologies that enable web-based integration, and show how these technologies are used in order to develop complex web applications and even entire business processes.

The course is composed of the parts listed below. Each part ends with an assignment that is worth 20%. The course ends with a final project that is worth 40%. The actual topics that will be covered might vary, according to the progress made by the class.

Part 1: Enabling Technologies

In the first part of the course we survey the technological stack that enables web automation: The XML document model and the web transport protocols. We will cover the following subjects briefly: The XML document model and XML Schema; HTTP protocols, GET and PUT, HTML forms; The CGI concept, the structure of a web application, Java Servlets and JSP (briefly)

The assignment for this part will be to write a simple servlet and access it using an HTTP request.

Part 2: Web Services

In the second part of the course we will describe the structure and use of web services, including the following subjects: WSDL; SOAP and Binding web services to Java implementations; Writing web services clients and mesh-up applications.

The assignment for this part will be to specify and implement a few simple web services and a client application that accesses them.

Part 3: Introduction to SOA

In the last part of the course we will discuss the concept of Service-Oriented Architecture (SOA) and using web services as building blocks for implementing a business process. We will focus on BPEL as the process execution engine.

The assignment for this part will be to write a BPEL process on top of the web services from part 2.

Final Project

The course will end with a summary project. The project will be to specify and implement a complete business process, including web services and orchestration.