# Department of Computing

**CS 312: Software Construction**

**Class: BSCS 6 AB**

# Lab 12: Web Services

**Date: May 9th, 2018**

**Time: Wednesday (10:00-12:50 & 14:00 – 16:50)**

# Instructor: Zain ul Hassan Khan

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# Lab 12: Web Services

## Introduction

You are already familiar with the E-Café Management System . **In Today’s lab you will be only writing two Web Services for the Café.**

**Summary of the Previous Lab**

In this lab the students have to design, develop and test an e-commerce solution for a new café in Islamabad. You can get more details about the café from the description section, but you will be free to design the system and add any realistic assumptions. You need to implement your design by creating web services using Eclipse .

## Objectives

* Design a Customer Management System for a Café based on the given requirements.
* Add any realistic assumptions to clarify the requirements and by extension the design.

**Description**

A new café in Islamabad wants to establish a niche by providing an online delivery and pick-up information system for their customers. This information system will keep record of food items (atleast 10-12 unique items) and will allow the user to order the item for delivery or self-pick-up. The customer will start by viewing the menu . The customer can select any number of items and will be able to see a bill generated for all the selected items. The customer will also provide information about the delivery address (in case of delivery) and time within the opening hours (in case of pick-up).

Please take care that how the new items can be added in the menu and how old ones can be removed dynamically.

How administrator can view the list of orders for the day. How staff can update the status of the completed orders. How the owner can view the list of orders of the previous days and the number of orders of each month.

Will each customer has its own login or will there be no login. Will there be multiple sites for customers, staff, administrator and owner or will it be all on the same site?

**This Week Lab Task**

1. Write down a Saop Based Web Service that allows to add different food items in the Data Base. The food items have different attributes like quantity in grams. Price in rupees and preparation time. A user can add , view and display the food items on the client side. Use Eclipse for creating the web service. Follow the attached tutorial for creating the Soap based service

https://www.journaldev.com/9131/soap-webservices-in-java-example-eclipse

1. Write down a rest based web service that allows to add different orders into the database. User can add orders ,edit orders, view orders and delete orders in the data base. You can use the following tutorial for creating the Rest Web Service. https://www.pegaxchange.com/2016/08/11/jax-rs-java-rest-service-eclipse-tomcat/

You can use the Postman interface for testing the functionality of your web service . However the final submission will have your own client interface for displaying the orders.

## Deliverables

* Each submission is group based with the following composition:
  + Source Code
  + Documentation(Introduction, Approach, Design, How to Run and Analysis)

## Grade Criteria

This lab will be graded on the following rubric: 