# Department of Computing

**CS 213: Advanced Programming**

**Class: BSCS 5 AB**

# Lab 9: Hibernate Association Mapping

**Date: November 23rd, 2017**

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

# Instructor: Fahad Ahmed Satti

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# Lab 9: Hibernate Association Mapping

## Introduction

Extend the sample code “Hiberate5Example”, shared on LMS to map task and department associations, as given in the description section.

## Objectives

After performing this lab students will be able to understand:

* Hibernate Association Mapping

## Tools/Software Requirement

* You can take help from internet but remember **no plagiarism.**

**Description**

Every Regular Employee can have many tasks assigned to him but only 1 Task is assigned to a Contract Employee.

Each Task can have many Contract Employees working on it, but only 1 Regular Employee.

Every Employee can have many Resources and each resource can be shared by many employees.

Each task must implement the interface OperationService with a start and stop method (Method definitions can contain simple output statements). However, at the end of each of these operations, the associated Task name and the status string (“Start” or “End”) is also save in the db as a log.

public interface OperationService {

//Indicates "start" of a task by returning an appropriate string

public String startTask();

//Indicates "end" of a task by returning an appropriate string

public String endTask();

}

Create Unit tests to create your employees, assign some tasks, execute the tasks, mark contract employees as deleted in the DB(after task completion), clean the resource usage to remove the soft-deleted employees, and log for the operations.

Each student must, individually build the complete application on their own. Students must upload their solutions on LMS to qualify for evaluation.

**Lab Task**

* Extend the given example Hibernate5Example to map associations, as stated above.
* Implement the interface OperationService.
* Persistently, log the events inside OperationService.
* Show One-One, One-Many, and Many-Many hibernate association mapping by implementing this task.

## Deliverables

* Each submission is individual with the following composition:
  + Updated Source Code
  + DB dump files
  + Documentation(Introduction and Analysis)
* Convert your submission files into a zip folder and name it as given below, finally upload the zip folder to LMS.
  + Name – Registration No. – Section

## Grade Criteria

The lab will be graded between 1 and 10 based upon your understanding of Hibernate and Hibernate Association Mapping. To qualify for a viva, you must complete all tasks, individually.