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**Lab 9**

**Github Link:** <https://github.com/aminrashid/Software-Construction>

**Introduction:** In this lab the task was to use Hibernate and spring to create a grade book and we need to make an application that is able to manage grades, courses, teachers and students.

**Approach:** Using the skeleton code we have to work out how to improve it to make the grade book for useable and to do most of the tasks. A grade book is given which we have to manage and to do so we need to define BOs and use the given DAOs. We should be able to store the data with the help of the BOs and use HCQL to retrieve the information.

**Design:** We are provided with a skeleton code that we have to change or improve to be able to complete the tasks that we are given. We have different classes for teachers, students, courses, grades etc as well as we have the DAO classes for each of these and they are all used and updated using spring to be able to update grades and delete student information. Also you can print the information to a CSV file

**How to Run and Analysis:** It is very easy to run as you just have to open NET beans and open the file and run the application and it will read the csv file for you and calculate the time that you want.