Department of Computing

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BESE-5B

**Lab 7: Data Analysis With Hibernate**

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**SE312: Software Construction**

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**GitHub:** <https://github.com/SyedDawoud/University/tree/master/Software%20Construction/Labs>

# Introduction

This lab involves the data analysis using the Hibernate. As the data is inside a database, we can a lot of stuff using SQL. Hibernate provides its own language to deal with the data in the db. One language is Hibernate Query Language and second is Hibernate Criteria Query Language. HQL uses object-oriented approach to get data. HCQL does the same, but there are restrictions and a lot of extra stuff that can be done. This lab is there to see how such things work

# Approach & Analysis

First, we need to parse the CSV file and store the data. For this purpose, first the CSV file is parsed and the data is stored inside the database. Then all the queries are run accordingly on the data. There are 3 Business Objects that will interact with the Data Access Objects. DAO will run the HCQL to access the data. The distinction will be done based on the scheme. The basic tasks are just the mean and Standard deviation of the fields e.g. mean time of correct login, mean error of login, standard deviation for the challenges etc.

# Running the Code

As the framework used is Hibernate, so Hibernate needs to be configured to be used with this application. Also, there is need to setup MySQL drivers to connect with the database accordingly.

# Screenshots

