POLITEKNIK BRUNEI	SCHOOL OF POLITEKNIK BRUNEI WEEKLY MODULE PLAN	REFERENCE NUMBER: PB/AS/LP/002 VERSION: 1.2 REVISION DATE: 06/10/2018 EFFECTIVE DATE: 1/1/2019

MODULE CODE/NAME	NS4307, Network Programming	TOPIC	MySQL Java Persistence API
SEMESTER	Semester 2, 2021 / 2022	GROUP CODE/INTAKE	DITN12 (Intake 11), DITN10R (Intake 9)
SCHOOL/DEPT	School of ICT	WEEK	Week 11 - 03/04 – 09/04

PEDAGOGICAL APPROACH

☐ Knowledge Building ☑ Presentation ☐ Co-operative/Collaborative Lear ☐ Experimental Learnin ☑ Case Studies
☐ Discussion ☑ Blended Learning ☐ Debate ☐ Others, please specify _____

RESOURCES

Learning management sytem

LESSON LEARNING OBJECTIVES	METHOD OF INSTRUCTION/LEARNING ACTIVITIES	REFLECTIVE EVALUATION
At the end of this lesson, the student should be able to: 1) Apply Structured Query Language (SQL)	Session 1: Practical (2 hours): - Show how to implement Primary Key in Database Table. - Show how to delete and changing Primary Key from Database Table. - Show how to understand basic Entity Relationship Diagram and implement to MySQL. - Show how to implement Foreign Key in Database Table. - Show how to delete and changing Foreign Key from Database Table. - Show the benefits of using Foreign Key. - Show how to implement auto increment. - Emphasis in the lecture notes there are more advance technique available in MySQL.	Finished the lesson 30 minutes before the end. Used the extra time to asked about their assignments. Most of the groups are still in the designing stage. Apparently they focused on other modules' assessments.
At the end of this lesson, the student should be able to: 1) Apply Structured Query Language (SQL)	Session 2: Lecture (1 hour 30 minutes): - Define Spring Data JPA - Explain how to configure Spring Data JPA to Spring Application. - Define MySQL connector - Explain how to configure MySQL connector to Spring Application. - Explain how to configure Spring Application to connect to MySQL database in properties file. - Explain how to make POJO to structure data in database. - Define @Entity and @Table annotation. - Define @Id, @GeneratedValue and @NotNull annotation - Show example of POJO that sturture data in database. - State that it is required to implement a no-arg constructor in POJO. - Define Data Access Object (DAO) - Define CrudRepository interface - Explain how to implement the interface in to handle POJO - State the methods available in DAO: delete, exists, findAll, findOne and save - Explain how to use DAO in controller - Explain how to retrieve all entities using DAO - Explain how to retrieve one entity using DAO - Explain how to implement our own method in DAO - Explain how to add data to database - Explain remove data from database - Explain how to update data from database Practical (30 minutes): - Facilitate students' laptop to make sure their spring tools suite could connect to the database.	As expected, there are a lot of error when students install the dependencies for spring jpa and mysql connector. Typical issues are since they are using the school's student internet, since it is not that stable, the installation are halted and it caused error to the whole Spring project. By the end of the class, all issues are solved. Another note, mysql.mysql-connector-java dependency is no longer available. It has been changed to <groupId>com.mysql</groupId> <artifactId>mysql-connector-j</artifactId>
At the end of this lesson, the student should be able to:	Session 3:	

NAME & SIGNATURE

MODULE LECTURER Jailani Abdul Rahman DATE: 13/04/2023	PROGRAMME LEADER / ASSISTANT HOS (aHOS)/ HEAD OF SCHOOL (HOS) Jamiatul Zuhriah DATE: 15/04/2023

COMMENTS BY PROGRAMME LEADER/ ASSISTANT HOS (aHOS)/ HEAD OF SCHOOL (HOS) (If any)

Alhamdulillah, you managed to solve the issues well. Well done cg.