MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY

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DEPARTMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY

Lab Report

Lab Report No: 04

Lab Report on: JDBC managing communication between a Java application and a relational database

Course Title: Software Engineering and Project Management Lab

Course Code: ICT-3108

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JDBC stands for Java Database Connectivity. It is used to connect a Java program with a relational database. JDBC works as a bridge between Java application and database. The Java program sends SQL queries using JDBC. JDBC driver receives the request and talks to the database. The database process the query and sends to the result back. JDBC driver receives/returns the result to the Java program. JDBC allow data to be inserted, updated, deleted and read. It also handles connection and error management. Thus JDBC manages ~~smooth~~ smooth communication between Java and Database. To execute a select query, JDBC follows some fixed steps.

Java code:

```
import java.sql.*;
class SelectExample{
  public static void main(String[] args){
      Connection con = null;
  try{
      con = DriverManager.getConnection(
"Jdbc:mysql://localhost:3306/testdb","root",
"123@akub@123");
  Statement st = con.createStatement();
  ResultSet rs = st.executeQuery("select *
  from student");
while(rs.next()){
  System.out.println(rs.getInt(1)+" "+rs.get
                                    String(2));
}
}
catch(Exception e){
      System.out.println("Error Occured");
}finally{
    try{ if(con != null){
            con.close();
    }
```

```
catch (Exception e){
    System.out.println("connection not closed");
}
}
}
}
```