



**Vidyavardhini's College of Engineering and Technology**

**Department of Artificial Intelligence & Data Science**

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Experiment No.9
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Demonstrate Database Connectivity.
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Date of Performance:
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Date of Submission:
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## Department of Artificial Intelligence & Data Science

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**Aim :-** Write a java program to connect Java application with the MySQL database

**Objective :-** To learn database connectivity

### Theory:

Database used : MySql

1. Driver class: The driver class for the mysql database is `com.mysql.jdbc.Driver`.
2. Connection URL: The connection URL for the mysql database is `jdbc:mysql://localhost:3306/loan management` where `jdbc` is the API, `mysql` is the database, `localhost` is the server name on which mysql is running, can also use IP address, `3306` is the port number and `loan management` is the database name.
3. Username: The default username for the mysql database is `Hiren`.
4. Password: It is the password given by the user at the time of installing the mysql database. Password used is “ ”.

To connect a Java application with the MySQL database, follow the following steps.

- First create a database and then create a table in the mysql database.
- To connect java application with the mysql database, `mysqlconnector.jar` file is required to be loaded.
- download the jar file `mysql-connector.jar`
- add the jar file to the same folder as the java program.
- Compile and run the java program to retrieve data from the database.

**Conclusion:** Data has been retrieved successfully from a table by establishing database connectivity of java program with mysql database.

1. Explain steps to connect a java application with the MySQL database.

Ans.: Download and install MySQL Connector/J.

Include the MySQL Connector/J JAR file in your Java project.

Import the necessary classes from the `java.sql` package.

Use the '`DriverManager.getConnection()`' method to establish a connection to the MySQL database.

Provide the JDBC URL, username, and password for authentication.

Perform database operations using `Statement` or `PreparedStatement` objects.

Close the connection and resources after completing the database operations.