**19. Setting Up Hibernate Development Environment**

**Required Software**:

To build Hibernate applications, we need the following things (Eclipse).

1. Java Integrated Development Environment (IDE)
2. Database Server (MySQL Server)
3. Hibernate JAR files and JDBC Driver

**Install MySQL on MS Windows**:

1. Download MySQL (<https://dev.mysql.com/downloads/installer/>)
2. Install MySQL (With MySQL Workbench)
3. Verify Installation

**Setting Up Database Table**:

Look at the following two SQL-scripts

**File: 01-create-user.sql**:

CREATE USER 'hbstudent'@'localhost' IDENTIFIED BY 'hbstudent';

GRANT ALL PRIVILEGES ON \* . \* TO 'hbstudent'@'localhost';

#

# Starting with MySQL 8.0.4, the MySQL team changed the

# default authentication plugin for MySQL server

# from mysql\_native\_password to caching\_sha2\_password.

#

# The command below will make the appropriate updates for your user account.

#

# See the MySQL Reference Manual for details:

# https://dev.mysql.com/doc/refman/8.0/en/caching-sha2-pluggable-authentication.html

#

ALTER USER 'hbstudent'@'localhost' IDENTIFIED WITH mysql\_native\_password BY 'hbstudent';

**File: 02-student-tracker.sql**:

CREATE DATABASE IF NOT EXISTS `hb\_student\_tracker`;

USE `hb\_student\_tracker`;

--

-- Table structure for table `student`

--

DROP TABLE IF EXISTS `student`;

CREATE TABLE `student` (

`id` int(11) NOT NULL AUTO\_INCREMENT,

`first\_name` varchar(45) DEFAULT NULL,

`last\_name` varchar(45) DEFAULT NULL,

`email` varchar(45) DEFAULT NULL,

PRIMARY KEY (`id`)

) ENGINE=InnoDB AUTO\_INCREMENT=1 DEFAULT CHARSET=latin1;

**Now create a new MySQL user**:

User id: **hbstudent**

Password: **hbstudent**

**Process**:

1. Start **MySQL Workbench** and login as **root** user.
2. Click Folder icon -> select (**01-create-user.sql**) script -> open -> Click execute button ->close root connection
3. Click the plus icon beside “**MySQL Connections**” -> Connection Name (**hbstudent**) -> Username (**hbstudent**) -> Test Connection -> Ok.
4. Now in “**MySQL Workbench**” page click **hbstudent**

**Table creation**:

Create a new database table: student

**Process**:

1. Start **MySQL Workbench** and login as **hbstudent** user. Password ->  **hbstudent**
2. Click Folder icon -> select (**02-student-tracker.sql**) script -> open -> Click execute button ->close root connection
3. Click Folder icon -> select (**01-create-user.sql**) script -> open -> Click execute button
4. n the left side (Schema area) right click -> Refresh All ->we will see the table “hb\_student\_tracker”

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