**Assessment 1**

Set up a database before embarking on our database programming. We shall call our database "ebookshop" which contains a table called "books", with 5 columns, as below:

Database: **ebookshop**

Table: **books**

+-------+----------------------------+---------------+---------+-------+

| **id** | **title** | **author** | **price** | **qty** |

| (INT) | (VARCHAR(50)) | (VARCHAR(50)) | (FLOAT) | (INT) |

+-------+----------------------------+---------------+---------+-------+

| 1001 | Java for dummies | Tan Ah Teck | 11.11 | 11 |

| 1002 | More Java for dummies | Tan Ah Teck | 22.22 | 22 |

| 1003 | More Java for more dummies | Mohammad Ali | 33.33 | 33 |

| 1004 | A Cup of Java | Kumar | 44.44 | 44 |

| 1005 | A Teaspoon of Java | Kevin Jones | 55.55 | 55 |

+-------+----------------------------+---------------+---------+-------+

Run the following SQL statements to create our test database and table.

create database if not exists **ebookshop**;

use ebookshop;

drop table if exists books;

create table **books** (

**id** int,

**title** varchar(50),

**author** varchar(50),

**price** float,

**qty** int,

primary key (id));

insert into books values (1001, 'Java for dummies', 'Tan Ah Teck', 11.11, 11);

insert into books values (1002, 'More Java for dummies', 'Tan Ah Teck', 22.22, 22);

insert into books values (1003, 'More Java for more dummies', 'Mohammad Ali', 33.33, 33);

insert into books values (1004, 'A Cup of Java', 'Kumar', 44.44, 44);

insert into books values (1005, 'A Teaspoon of Java', 'Kevin Jones', 55.55, 55);

select \* from books;

1. Write a java program to query all the rows from books table using JDBC api.
2. Follow the Java standards for the package structure and naming conventions.
3. Use singleton pattern to manage database connection. Create a class called ConnectionManager. The class should be created in a way that only one instance of Database connection can be created at any point in time. The class will also have a method to close the connection.
4. Handle the SQL exceptions by displaying appropriate error messages.

After the code is complete, export the project as a zip file and upload it to the shared folder.