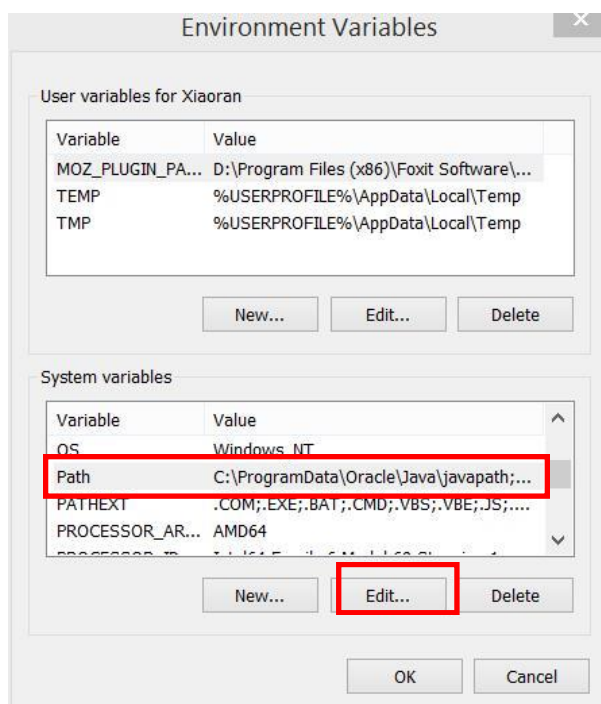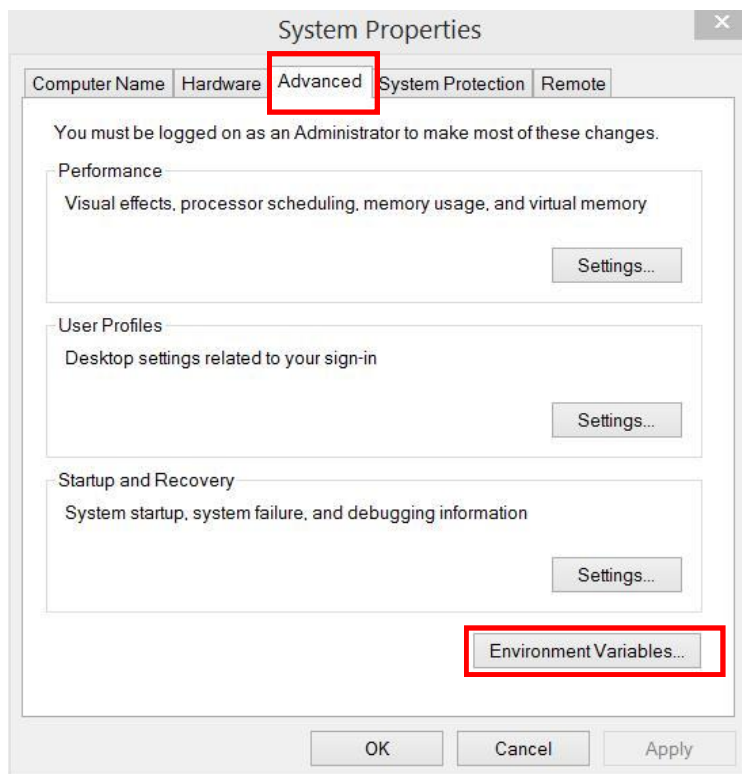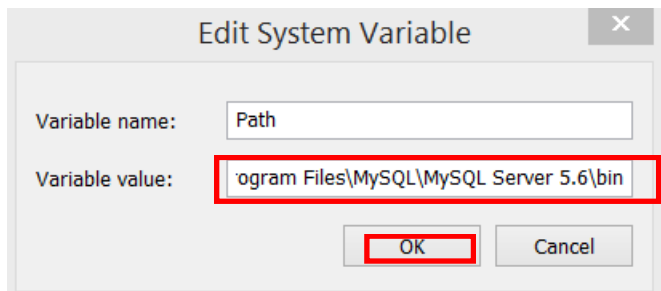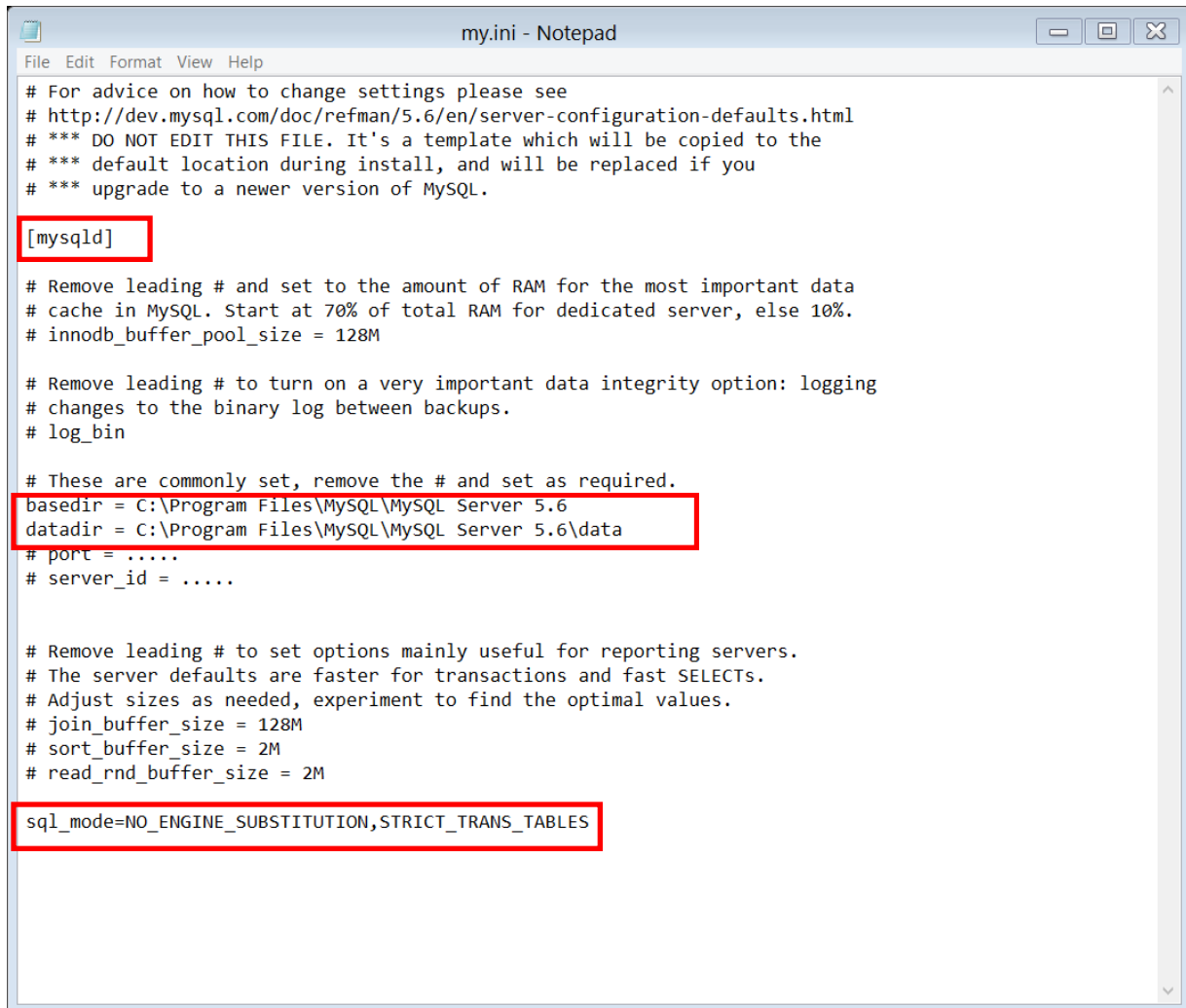1. Install mysql
2. Load drivers
3. Build database
4. Run the java code

1. Install mysql
   a. Download the zip file from https://dev.mysql.com/downloads/mysql/5.6.html#downloads
   b. Extract the file
   c. Change the Environment Variables

Edit System Variable

Variable name: Path

Variable value: ogram Files\MySQL\MySQL Server 5.6\bin

OK   Cancel

d. Build a document my.ini in fold mysql,

my.ini - Notepad

File Edit Format View Help

```
# For advice on how to change settings please see
# http://dev.mysql.com/doc/refman/5.6/en/server-configuration-defaults.html
# *** DO NOT EDIT THIS FILE. It's a template which will be copied to the
# *** default location during install, and will be replaced if you
# *** upgrade to a newer version of MySQL.

[mysqld]

# Remove leading # and set to the amount of RAM for the most important data
# cache in MySQL. Start at 70% of total RAM for dedicated server, else 10%.
# innodb_buffer_pool_size = 128M

# Remove leading # to turn on a very important data integrity option: logging
# changes to the binary log between backups.
# log_bin

# These are commonly set, remove the # and set as required.
basedir = C:\Program Files\MySQL\MySQL Server 5.6
datadir = C:\Program Files\MySQL\MySQL Server 5.6\data
# port = .....
# server_id = .....


# Remove leading # to set options mainly useful for reporting servers.
# The server defaults are faster for transactions and fast SELECTs.
# Adjust sizes as needed, experiment to find the optimal values.
# join_buffer_size = 128M
# sort_buffer_size = 2M
# read_rnd_buffer_size = 2M

sql_mode=NO_ENGINE_SUBSTITUTION,STRICT_TRANS_TABLES
```

e. Run cmd as administer, type cd C:\Program Files\MySQL\MySQL Server 5.6\bin
   Type :mysqld – install
   Type : net start mysql

2. Load drivers
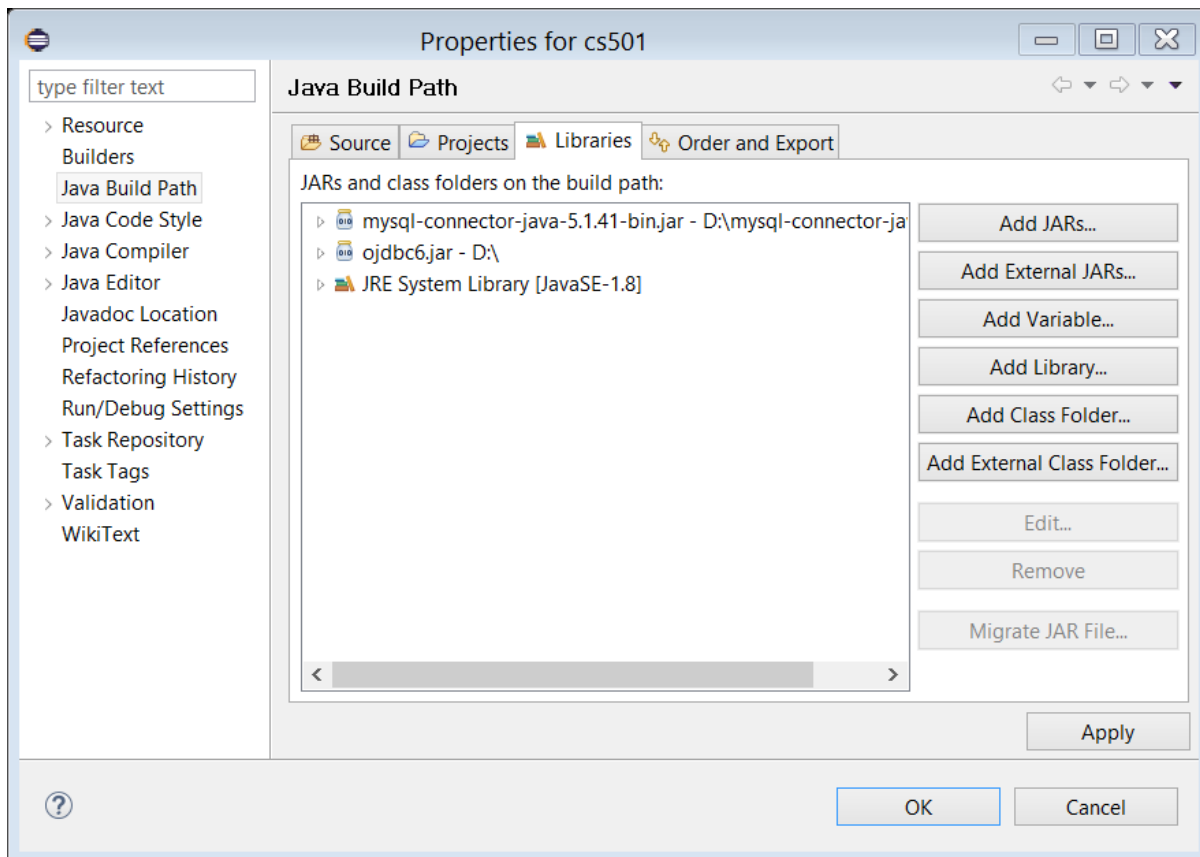
3. Build database

textbook (10th edition)—32.3.2

The tables

Table: course

Table:student

```
mysql> use javabook;
Database changed
mysql> select * from student
    -> ;
+-----------+-----------+--------+-----------+------------+------------+----------
------------+---------+--------+
| ssn       | firstName | mi     | lastName  | phone      | birthDate  | street
            | zipCode | deptId |
+-----------+-----------+--------+-----------+------------+------------+----------
------------+---------+--------+
| 444111110 | Jacob     | R      | Smith     | NULL       | 1985-04-09 | 99 Kingst
on Street  | 31435   | BIOL   |
| 444111111 | John      | K      | Stevenson | 9129219434 | NULL       | 100 Main
Street     | 31411   | BIOL   |
| 444111112 | George    | R      | Heintz    | 9129213454 | 1974-10-10 | 1200 Aber
corn Street | 31419   | CS    |
| 444111113 | Frank     | E      | Jones     | 9125919434 | 1970-09-09 | 100 Main
Street     | 31411   | BIOL   |
| 444111114 | Jean      | K      | Smith     | 9129219434 | 1970-02-09 | 100 Main
Street     | 31411   | CHEM   |
| 444111115 | Josh      | R      | Woo       | 7075989434 | 1970-02-09 | 555 Frank
lin Street | 31411   | CHEM   |
| 444111116 | Josh      | R      | Smith     | 9129219434 | 1973-02-09 | 100 Main
Street     | 31411   | BIOL   |
| 444111117 | Joy       | P      | Kennedy   | 9129229434 | 1974-03-19 | 103 Bay S
treet      | 31412   | CS     |
| 444111118 | Toni      | R      | Peterson  | 9129229434 | 1964-04-29 | 103 Bay S
treet      | 31412   | MATH   |
| 444111119 | Patrick   | R      | Stoneman  | NULL       | 1969-04-29 | 101 Washi
ngton Street | 31435 | MATH   |
| 444111120 | Rick      | R      | Carter    | NULL       | 1986-04-09 | 19 West F
ord Street | 31411   | BIOL   |
+-----------+-----------+--------+-----------+------------+------------+----------
------------+---------+--------+
11 rows in set (0.00 sec)
```

Table: enrollment

```
mysql> select * from enrollment;
+-----------+----------+----------------+-------+
| ssn       | courseId | dateRegistered | grade |
+-----------+----------+----------------+-------+
| 444111110 | 11111    | 2017-04-27     | A     |
| 444111110 | 11112    | 2017-04-27     | B     |
| 444111110 | 11113    | 2017-04-27     | C     |
| 444111111 | 11111    | 2017-04-27     | D     |
| 444111111 | 11112    | 2017-04-27     | F     |
| 444111111 | 11113    | 2017-04-27     | A     |
| 444111112 | 11111    | 2017-04-27     | NULL  |
| 444111112 | 11112    | 2017-04-27     | NULL  |
| 444111112 | 11114    | 2017-04-27     | B     |
| 444111112 | 11115    | 2017-04-27     | C     |
| 444111112 | 11116    | 2017-04-27     | NULL  |
| 444111113 | 11111    | 2017-04-27     | NULL  |
| 444111113 | 11113    | 2017-04-27     | NULL  |
| 444111114 | 11115    | 2017-04-27     | NULL  |
| 444111115 | 11115    | 2017-04-27     | NULL  |
| 444111115 | 11116    | 2017-04-27     | NULL  |
| 444111116 | 11111    | 2017-04-27     | NULL  |
| 444111117 | 11111    | 2017-04-27     | NULL  |
| 444111118 | 11111    | 2017-04-27     | NULL  |
| 444111118 | 11112    | 2017-04-27     | NULL  |
| 444111118 | 11113    | 2017-04-27     | NULL  |
+-----------+----------+----------------+-------+
21 rows in set (0.00 sec)
```

4. Run the java code

A8_JDBC.java

<terminated> A8_JDBC [Java Application] C:\
Driver loaded
Database connected
Jacob   R   Smith
Jean   K   Smith
Josh   R   Smith

A8_findGrade.java