

DBMS MINI PROJECT GROUP 7

APPLICATION INTEGRATIONS

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Run your SQL query from the browser (use DB-book online SQL website) :

- We used this website to run our sql query
<https://www.db-book.com/db7/university-lab-dir/sqljs.html>
- Joins and nested select commands are executed in this DB-book.
- In this website university database has been preloaded.



Sample Query:

```
SELECT "Student names with department  
and their instructors";
```

```
SELECT  
student.ID,student.name,student.dept_name,  
instructor.ID,instructor.name
```

```
FROM (student INNER JOIN advisor ON  
student.id = advisor.s_ID)
```

```
LEFT JOIN instructor ON instructor.ID =  
advisor.i_ID
```

```
ORDER BY student.ID;
```

Sample Output:

"Student names with department and their instructors"

Student names with department and their instructors

ID	name	dept_name	ID	name
00128	Zhang	Comp. Sci.	45565	Katz
12345	Shankar	Comp. Sci.	10101	Srinivasan
23121	Chavez	Finance	76543	Singh
44553	Peltier	Physics	22222	Einstein
45678	Levy	Physics	22222	Einstein
76543	Brown	Comp. Sci.	45565	Katz
76653	Aoi	Elec. Eng.	98345	Kim
98765	Bourikas	Elec. Eng.	98345	Kim
98988	Tanaka	Biology	76766	Crick

Let us see a demo



Access your MYSQL DB from a simple python program :

➤ Step 1: Database connectivity

Method 1:

In Anaconda prompt Type “ pip install mysql-connector-python” and execute it.

```
Anaconda Prompt (anaconda3)

(base) C:\Users\Lenovo>pip install mysql-connector-python
Collecting mysql-connector-python
  Downloading mysql_connector_python-8.0.23-cp38-cp38-win_amd64.whl (854 kB)
    | 854 kB 198 kB/s
Collecting protobuf>=3.0.0
  Downloading protobuf-3.15.6-py2.py3-none-any.whl (173 kB)
    | 173 kB 344 kB/s
Requirement already satisfied: six>=1.9 in c:\users\lenovo\anaconda3\lib\site-packages (from protobuf>=3.0.0->mysql-connector-python) (1.15.0)
Installing collected packages: protobuf, mysql-connector-python
Successfully installed mysql-connector-python-8.0.23 protobuf-3.15.6

(base) C:\Users\Lenovo>
```

Method 2:

- In Anaconda prompt Type “`conda install -c anaconda mysql-connector-python`” and execute it.



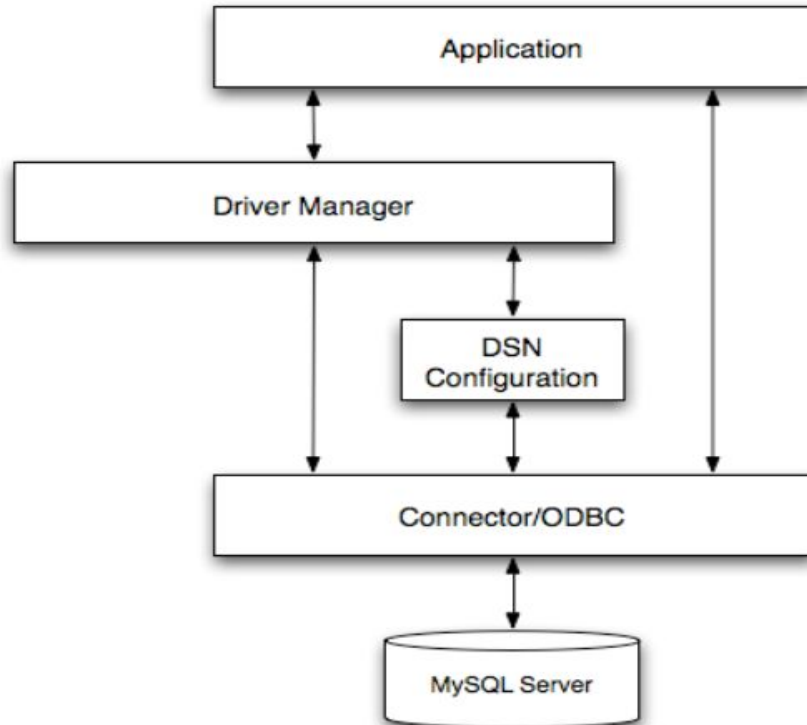
Let us see a demo



ODBC- Open *Database* Connectivity



Architecture of ODBC

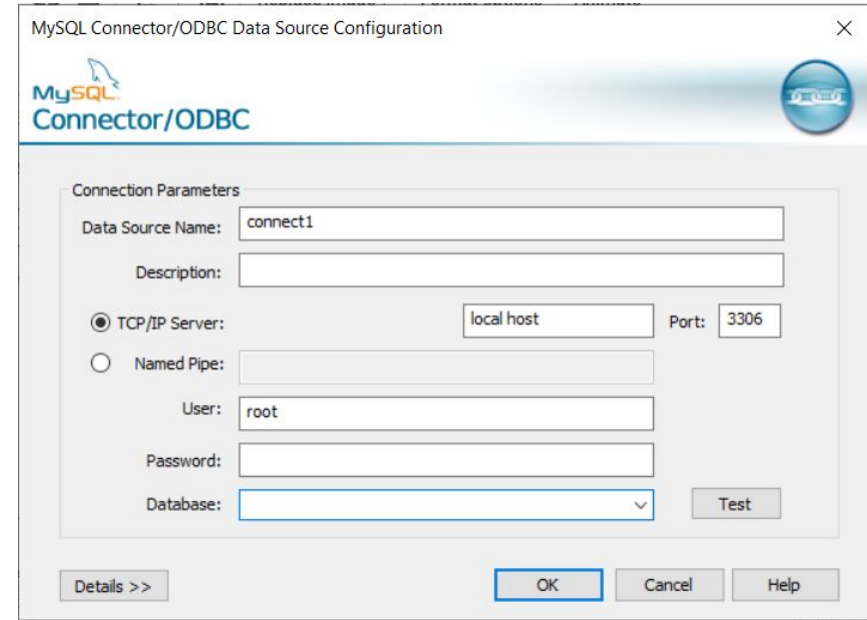
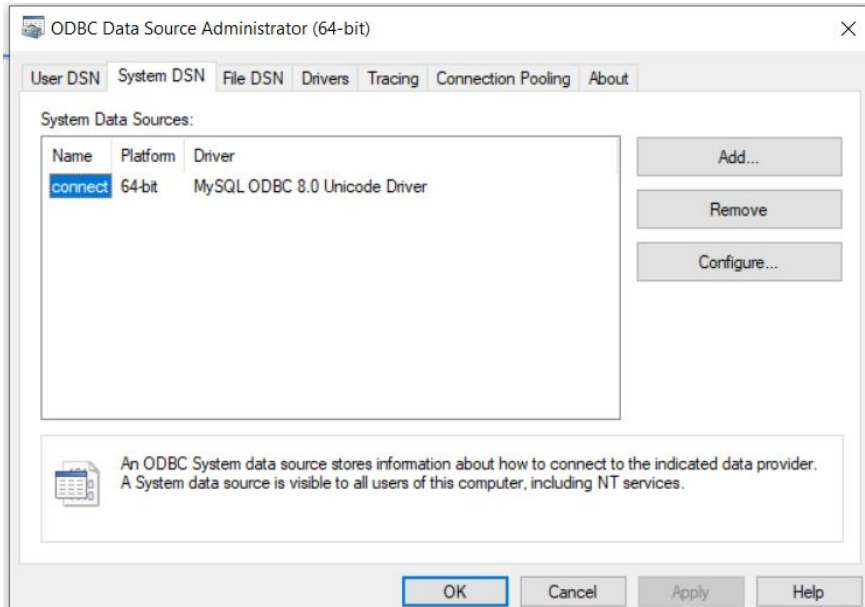


Demonstrate how your local programs run over ODBC to access DB

- Step 1: Install odbc connector from the website
<https://dev.mysql.com/downloads/connector/odbc/>



- Step 2: Set the system DSN
- Click add and set a DSN name
 - After filling the fields and select our database
 - Click test



- Step 3: Open anaconda command prompt and install ODBC packages using the command “conda install -c anaconda pyodbc”.

```
Anaconda Powershell Prompt (anaconda3)
(base) PS C:\Users\user> conda install -c anaconda pyodbc
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\user\anaconda3

  added / updated specs:
    - pyodbc

The following packages will be downloaded:



| package                    | build          | size   | channel  |
|----------------------------|----------------|--------|----------|
| ca-certificates-2020.10.14 | 0              | 159 KB | anaconda |
| openssl-1.1.1h             | he774522_0     | 5.8 MB | anaconda |
| pyodbc-4.0.30              | py38ha925a31_0 | 73 KB  | anaconda |


Total: 6.0 MB

The following packages will be SUPERSEDED by a higher-priority channel:



| package         | channel                |
|-----------------|------------------------|
| ca-certificates | pkgs/main --> anaconda |
| openssl         | pkgs/main --> anaconda |
| pyodbc          | pkgs/main --> anaconda |



Proceed ([y]/n)? y

Downloading and Extracting Packages
pyodbc-4.0.30 | 73 KB | ##### | 100%
ca-certificates-2020 | 159 KB | ##### | 100%
openssl-1.1.1h | 5.8 MB | ##### | 100%
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
(base) PS C:\Users\user>
```

Let us see a demo



Access MySQL DB using a simple PHP script

- Step 1: Create a HTML file and PHP file.
- Step 2: Store the HTML and PHP files are stored in www folder which is present inside the wamp64 folder.
- Step 3: Create a Virtual host in the localhost.



Let us see a demo



