

# Lab-1

**Aim: Recording types of data and various file formats. Identifying data sources. Handling traditionally to start with at small scale.**

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CE004

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Data Types

1. Student Information : Structured
2. Book Information : Structured
3. Feedback Form : Structured
4. Issuing and returning book information : Structured
5. E-Learning content : unstructured
6. Web Pages : Semi Structured

**Database vs. Data Warehouse**

**- Database**

- Used in OLTP
- Optimised for write operation
- Current Data
- Application Oriented
- Normalised Data

**- Data Warehouse**

- Used in OLAP
- Optimised for read operation
- Historical Data
- Subject Oriented
- Denormalized Data

- Given the spreadsheet file convert it into a csv

<https://www.zamzar.com/convert/xls-to-csv/>

data ☆ 📁 ☁

File Edit View Insert Format Data Tools Extensions Help [Last edit was 2 min](#)

100% £ % .0 .00 123 Default (Ari... 10 B I S

K3 fx

	A	B	C	D	E	F
1	Id	Name	Sem	Branch	CPI	
2	1	Ayarn	8	CE	10	
3	2	Jack	8	CE	10	
4	3	John	8	CE	10	
5						



[API](#) [FORMATS](#) [MY FILES](#) [CONVERTERS](#)



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FILE

STATUS

data.csv

Download

Files are stored for 24 hours ([want longer?](#))

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Follow

```
Id,Name,Sem,Branch,CPI
1,Ayarn,8,CE,10
2,Jack,8,CE,10
3,John,8,CE,10
```

- Import a csv into MySQL database table

[Browse](#)
[Structure](#)
[SQL](#)
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[Privileges](#)
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[Tracking](#)
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⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 3 (4 total, Query took 0.0011 seconds.)

`SELECT * FROM `data``

☐ Profiling
 [\[ Edit inline \]](#)
[\[ Edit \]](#)
[\[ Explain SQL \]](#)
[\[ Create PHP code \]](#)
[\[ Refresh \]](#)

☐ Show all | Number of rows: 25 | Filter rows:

+ Options

COL 1	COL 2	COL 3	COL 4	COL 5
Id	Name	Sem	Branch	CPI
1	Ayam	8	CE	10
2	Jack	8	CE	10
3	John	8	CE	10

☐ Show all | Number of rows: 25 | Filter rows:

Query results operations

[Print](#)
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[Create view](#)

[Bookmark this SQL query](#)

Label: 
☐ Let every user access this bookmark

☐ Console [x](#) this SQL query

- Write a computer program to read records from database and generate data file.
  - XML
  - JSON

## Convert CSV to Database file into sqlite.

```
[user1@hadoop-clone Personal]$ sqlite3
SQLite version 3.7.17 2013-05-20 00:56:22
Enter ".help" for instructions
Enter SQL statements terminated with a ";"
sqlite> .mode csv
sqlite> .import Student.csv Student
Error: no such table: Student
sqlite> CREATE TABLE Student(id integer PRIMARY KEY, name text, age integer, weight integer);
sqlite> .import Student.csv Student
Error: datatype mismatch
sqlite> INSERT INTO Student (7, "abc", 20, 40);
Error: near "7": syntax error
sqlite> INSERT INTO Student VALUES (7, "abc", 20, 40);
sqlite> SELECT * FROM Student;
7,abc,20,40
sqlite> .import Student.csv Student
sqlite> SELECT * FROM Student;
1,a,10,50
2,b,20,23
3,c,40,67
7,abc,20,40
sqlite> .tables
Student
sqlite> .output Student.sql
sqlite> .dump
sqlite> .exit
```

## CSV To XML Using 'convertcsv.com'

- CSV To HTML
- CSV To GeoJSON
- CSV To HTML Table
- CSV To JSON
- CSV To XML
- CSV To Markdown
- CSV To Multi-line Data
- CSV To PDF
- CSV To SQL
- CSV To Word
- CSV To XSL
- CSV To XSLX
- Pivot CSV
- Transpose CSV
- Query CSV with SQL

To CSV/Excel

- Flat File to CSV
- GeoJSON to CSV
- HTML Table to CSV
- HTML Table to CSV
- JSON to CSV
- XML to CSV
- XSL to CSV
- XSL to CSV
- XSL to CSV

Data Tools

- CSV Escape Text
- CSV Template Engine
- CSV Test
- CSV Editor
- Generate Test Data
- Email Extractor
- Phone Extractor
- Split Text to CSV File
- URL Extractor
- Extract via Regex
- CSV Merge

You have the option of specifying the top-level root name and the XML record name. You can also make each XML name upper or lower case. See also XML to CSV

Step 1: Select your input

Enter Data | Choose File | Enter URL

id,name,age,weight

1,a,10,50

2,b,20,23

3,c,40,67

Clear Input | Example 1 | Example 2 (Nested)

Input Records: Header: true | Header Fields: 4  
Data Separator: , | Fields: 4 | Records: 3

Step 2: Choose input options (optional) ▼

Step 3: Choose output options (optional) ▼

Step 4: Create Custom Output via Template (optional) ▼

Step 5: Generate output

Top-level Root Name: root | Each Record XML Name: row

Convert CSV To XML | Convert CSV To XML Properties

Result Data:

<?xml version="1.0" encoding="UTF-8"?>  
<root>  
 <row>  
 <id>1</id>  
 <name>a</name>  
 <age>10</age>  
 <weight>50</weight>  
 </row>  
 <row>  
 <id>2</id>

Save your result: convertcsv | .xml | Download Result | EOL: CRLF ▼

## CSV To JSON Using ‘csvjson.com’

Startfile

csvjson

Turnkey CSV Importer • Installs in minutes

[Home](#) / [csv2json](#)

### CSV or TSV > JSON

To get started, upload or paste your data from Excel (saved as CSV or TSV).

Upload a CSV file

Browse...

No file selected.

Or paste your CSV here

Id,name,age,weight  
1,a,10,50  
2,b,20,23  
3,c,40,67

Separator

Auto-detect

☒ Parse numbers

☒ Parse JSON

☐ Transpose

Output:

☒ Array

☐ Hash

☐ Minify

JSON

```
[  
  {  
    "Id": 1,  
    "name": "a",  
    "age": 10,  
    "weight": 50  
  },  
  {  
    "Id": 2,  
    "name": "b",  
    "age": 20,  
    "weight": 23  
  },  
  {  
    "Id": 3,  
    "name": "c",  
    "age": 40,  
    "weight": 67  
  }  
]
```

Convert

Clear

Download

Save

Copy to clipboard