

BIGDATA INTEGRATION TOOL

HANDLING VARIOUS TYPE OF DATA IN A ONE TOOL

Jeon Dabin

Integration Tool



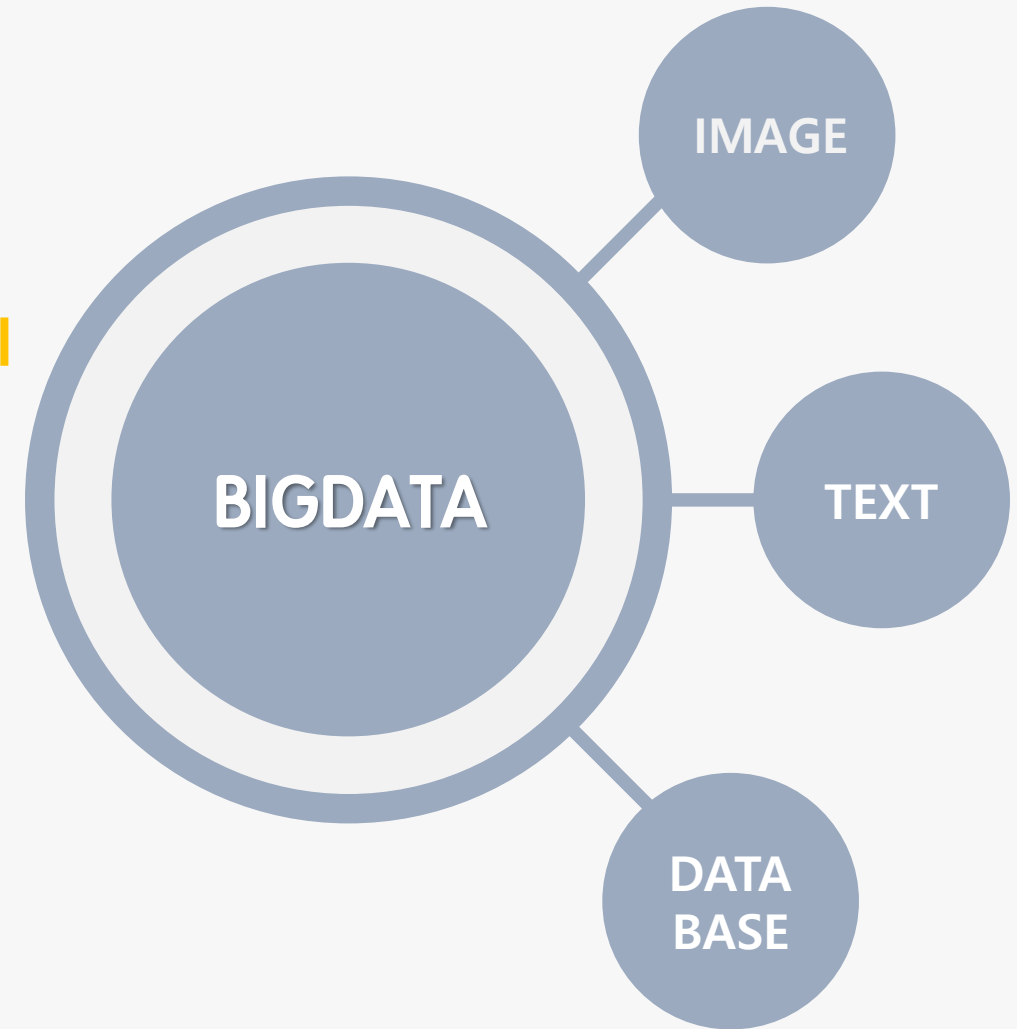
Image Reference : <https://thecustomizewindows.com/2017/05/integration-big-data-tools-wordpress/>

What is Bigdata Integration Tool ?

Different types of files are used in a single tool

Interconnectivity between files

No need to use various programs

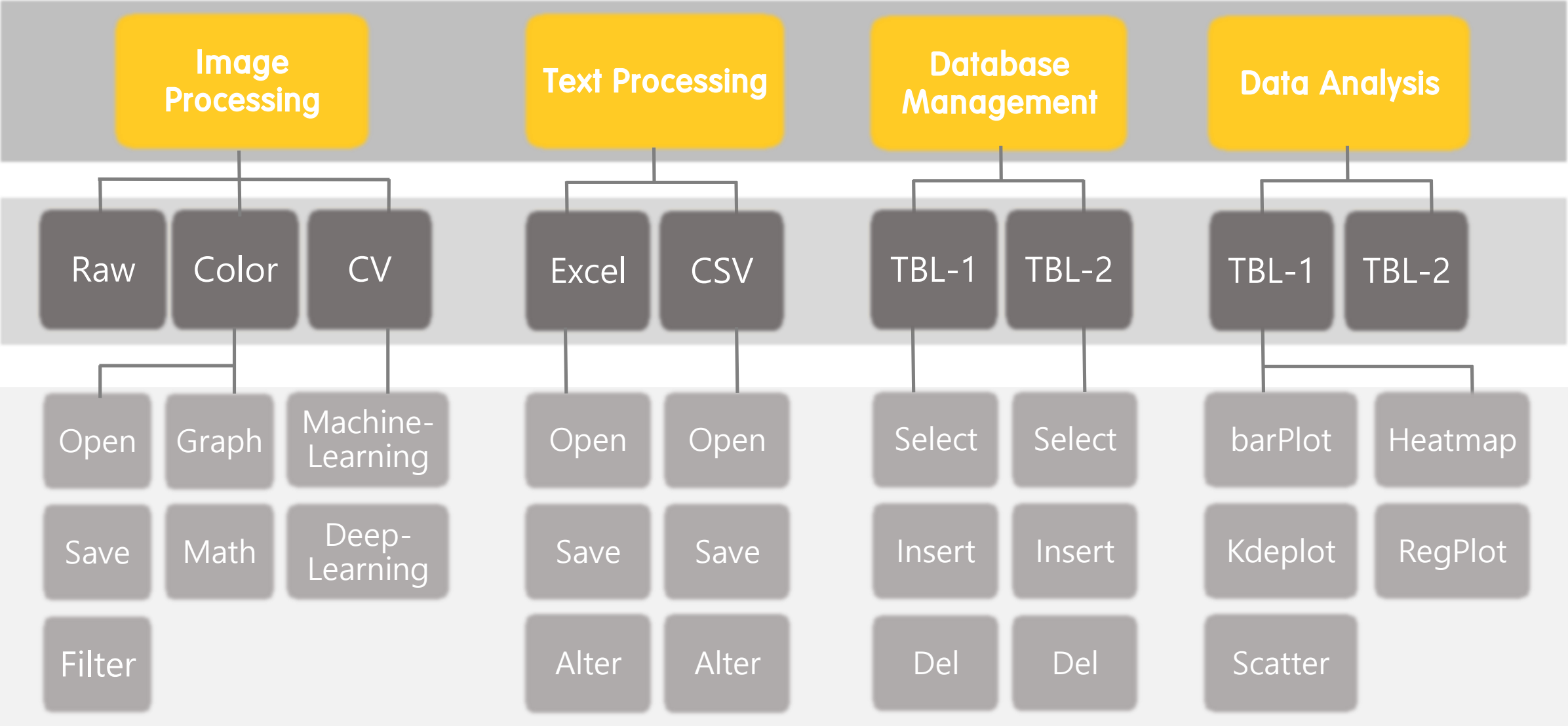


“
Handling data at once
Use Database easily”

Useful Point

- Compatibility
- Portability
- Time-saving
- No need to use various programs.
- It's easy to add other features.
- Detailed adjustment is possible.
- Connects to other DB with ID, password and IP address.

Menu Configuration



CompnayDB

Monthly SalesTBL

Id	invoice	product	cost	date

Monthly SuppliesTBL

supplier	invoice	product	cost	date

CustomerTBL

Id	name	age	gender	nation

SupplierTBL

Supplier	ceo	classify	start_date	location

ProductTBL

product	number	classify	import	location

" Fedora22 (Installed MySQL) "

```

mysql> exit;
Bye
[root@localhost etc]# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eno16777728: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:b5:e6:aa brd ff:ff:ff:ff:ff:ff
    inet 192.168.111.141/24 brd 192.168.111.255 scope global dynamic eno16777728
        valid_lft 1556sec preferred_lft 1556sec
    inet6 fe80::20c:29ff:feb5:e6aa/64 scope link
        valid_lft forever preferred_lft forever
[root@localhost etc]# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 463
Server version: 5.7.11 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use companyDB;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> _
  
```

To direct input to this VM, click inside or press Ctrl+G.

- DATASET -

	A	B	C
1	id	invoice_no	product_name
2	Dabin	100-1001	3672
3	Bloomberg	100-1002	7759
4	Bloomberg	100-1002	4859
5	MySQL	100-1003	5358
6	Stella	100-1004	251
7	Teemo	100-1005	2864
8	SQL_Serve	100-1006	2120
9	Bloomberg	100-1007	2737
10	Bloomberg	100-1007	8143
11	Bloomberg	100-1007	6319
12	SQL_Serve	100-1008	9654
13	Dabin	100-1009	8008
14	MySQL	100-1010	3993
15	PostgreSQL	100-1011	5884
16	Bloomberg	100-1012	1636
17	Bloomberg	100-1012	2594
18	RedLover	100-1013	3381
19	Power	100-1014	1612
20	Stella	100-1014	1460
21	MySQL	100-1014	9814
22	PostgreSQL	100-1015	1609

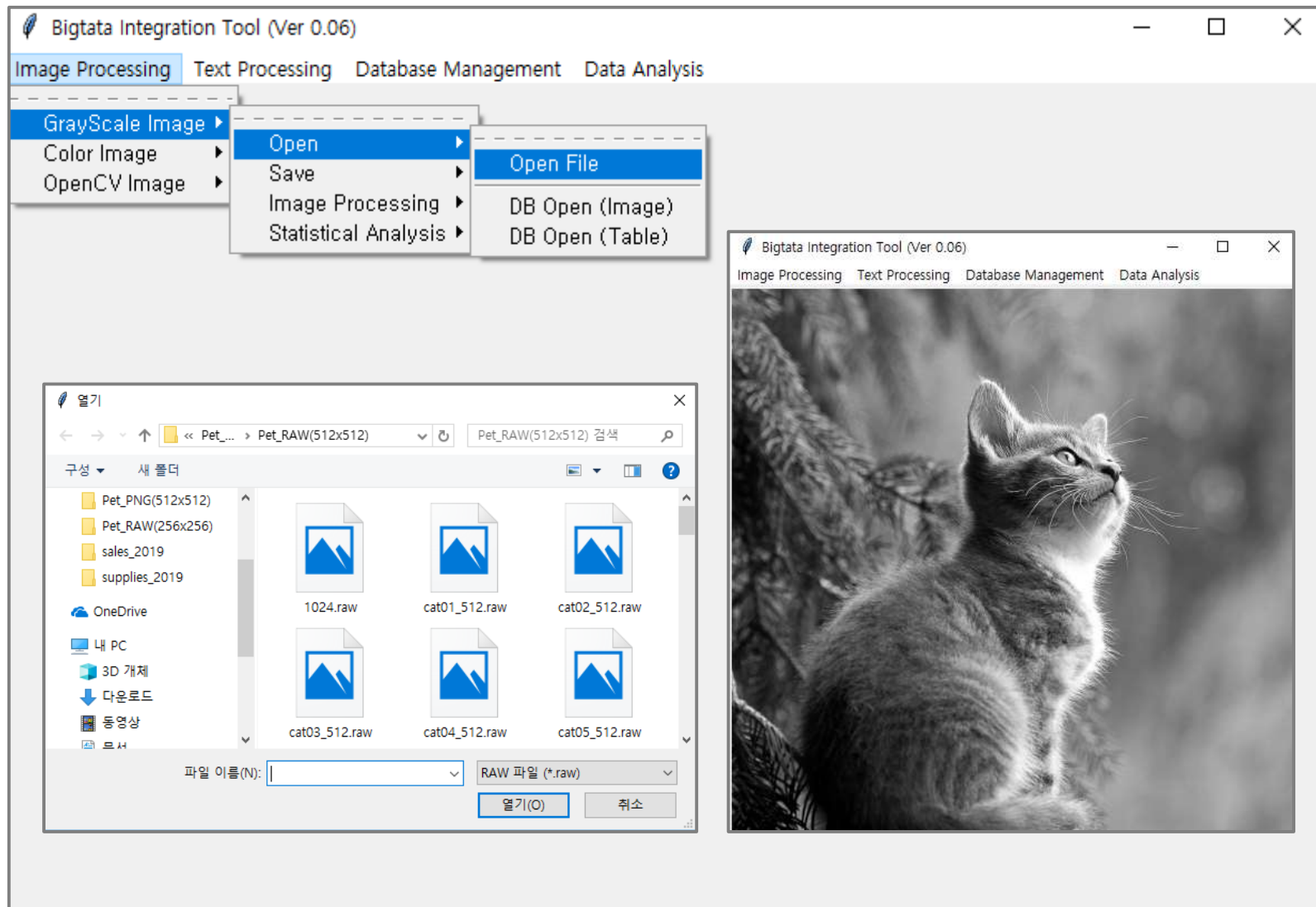
RUN

“

Bigdata Intrgration Tool

”

Image Processing (Raw)



< Image Load Process >

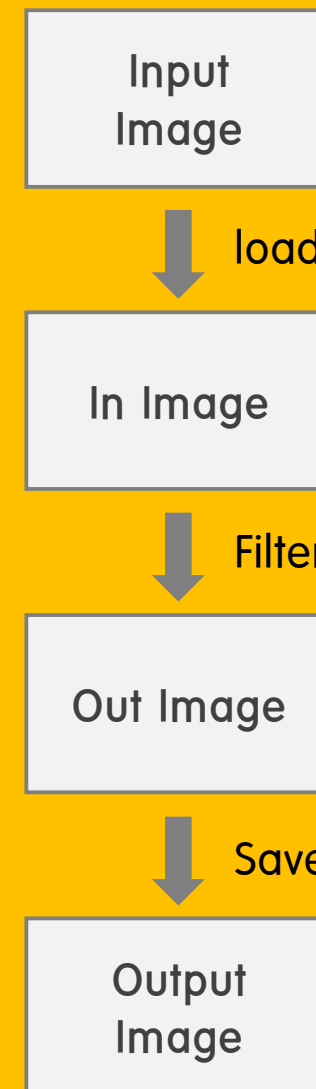
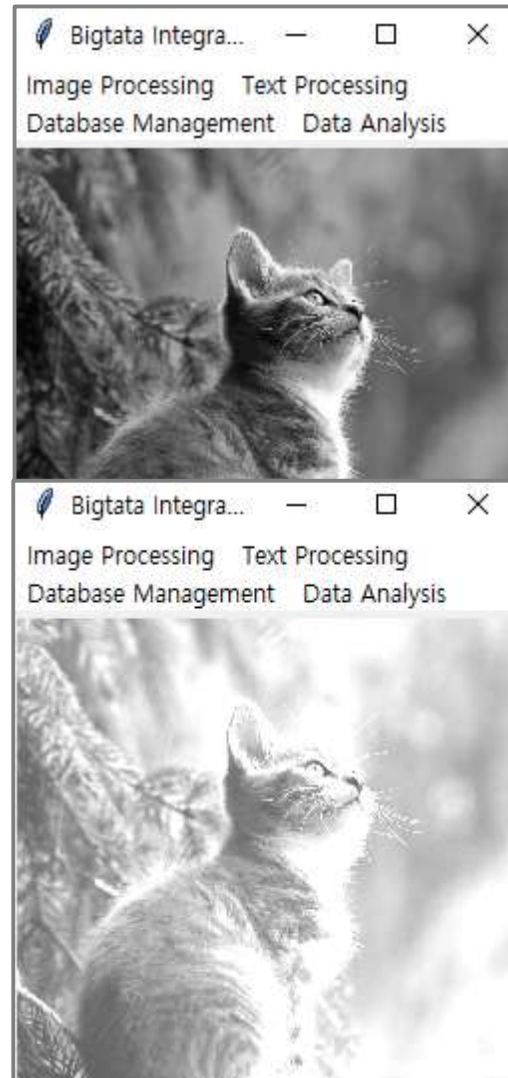
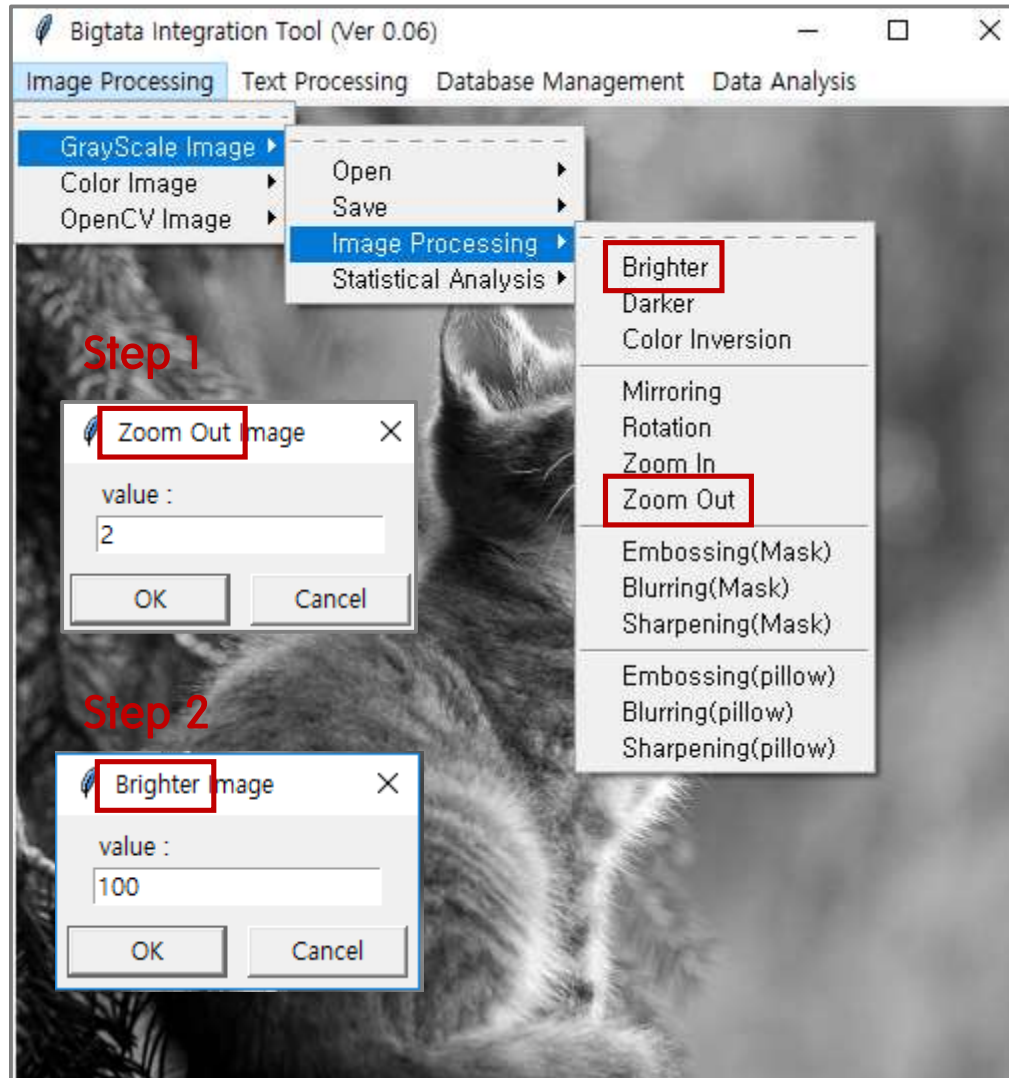


Image Processing (Raw)



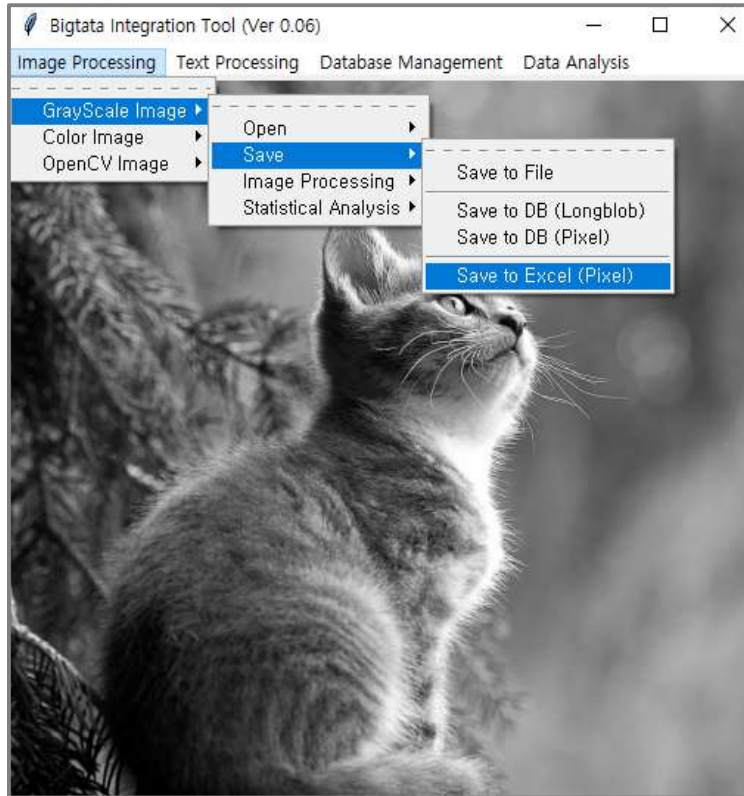
< Without Package >

Duplicate multiple effects

Detailed adjustment

- Zoom out value
- Brighter value, ect

Image Processing (Raw)



< Save to Excel >

Interworking between
Image file and Excel file

Principle :
To add a color by specifying
value between 0 and 225
for each pixel in an Excel

Image Processing (Color)

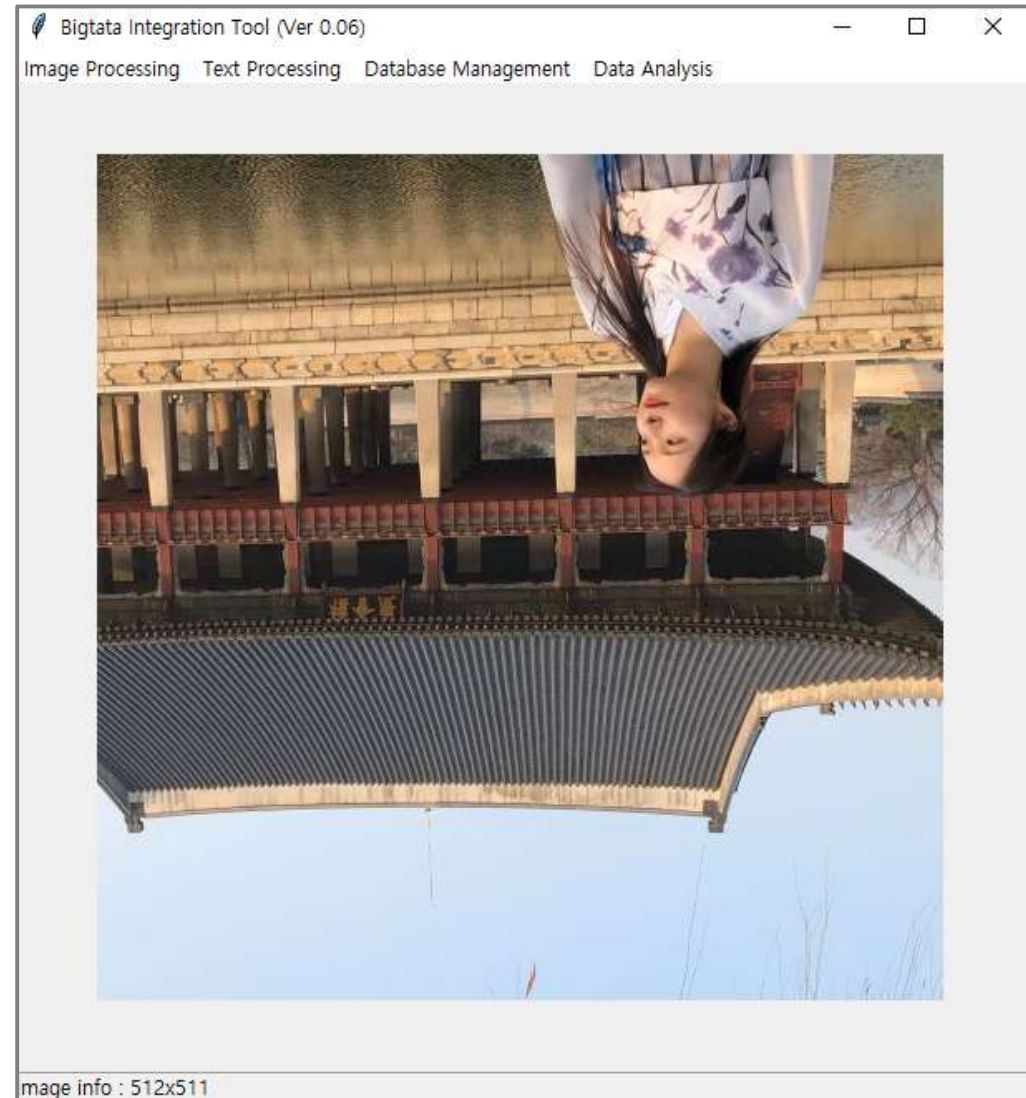
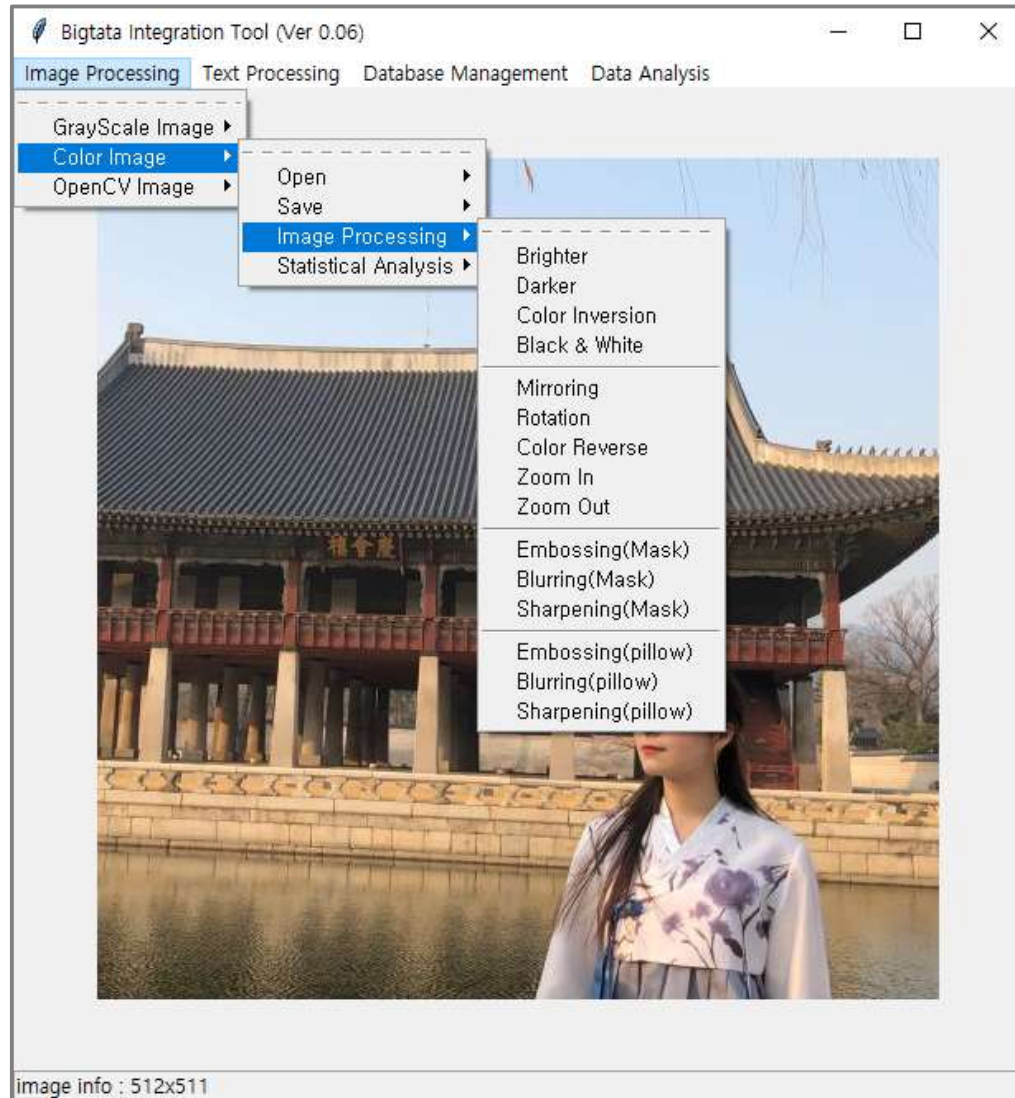
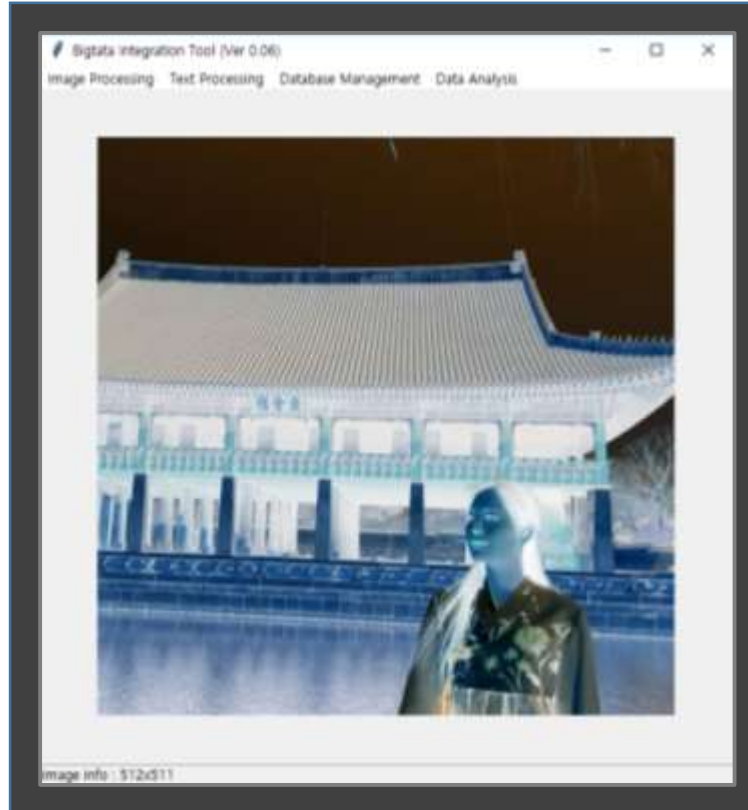


Image Processing (Color)

Original Image



Color Reverse



Black & White



Can apply various Effect

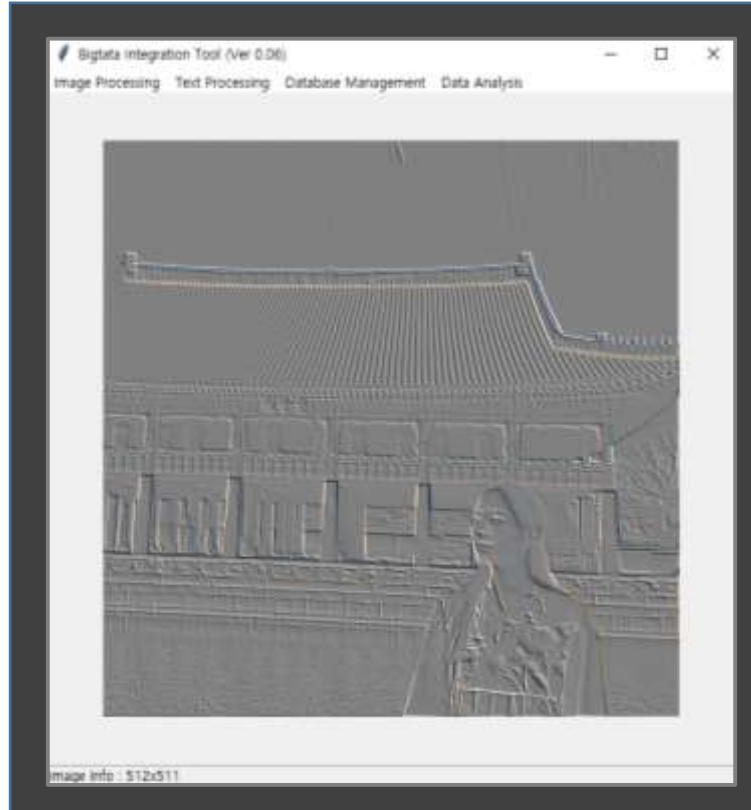
The effects continue to be added

Image Processing (Color)

Original Image



Embossing (Pillow)



Embossing (Mask)



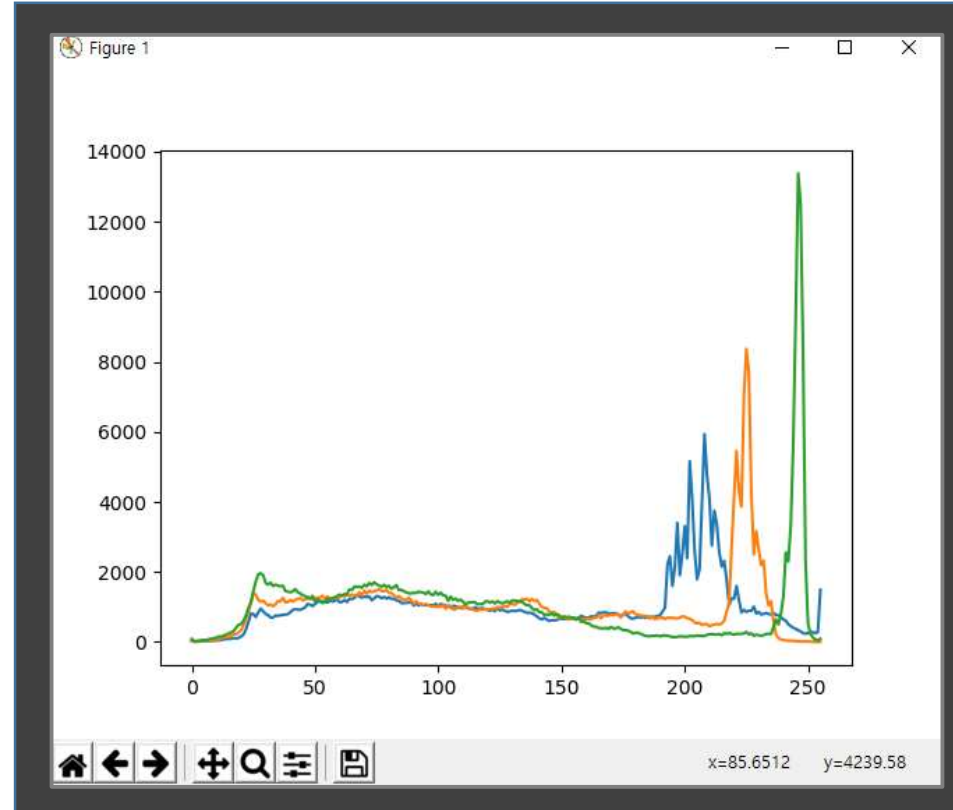
Same Effect , Difference Output
a wide range option of choice

Image Processing (Color)

Original Image



Proportion of RGB

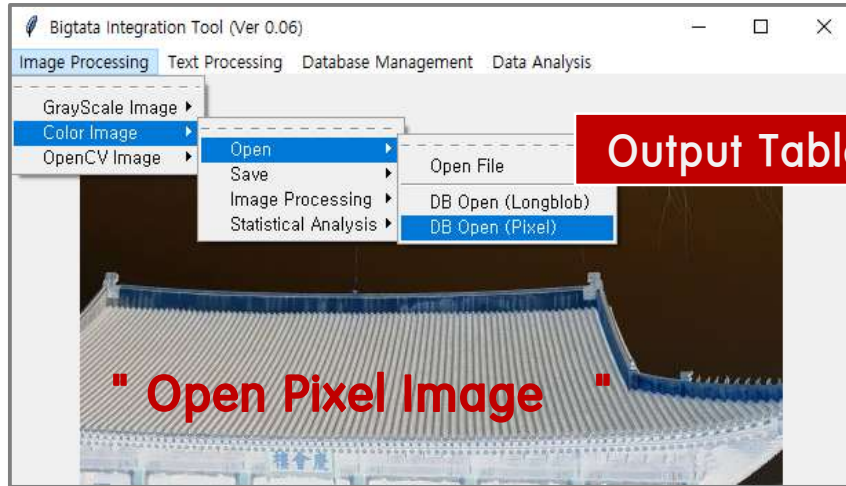


Use : **Matplotlib**

See the color variation

The color that is mostly used in this picture is green

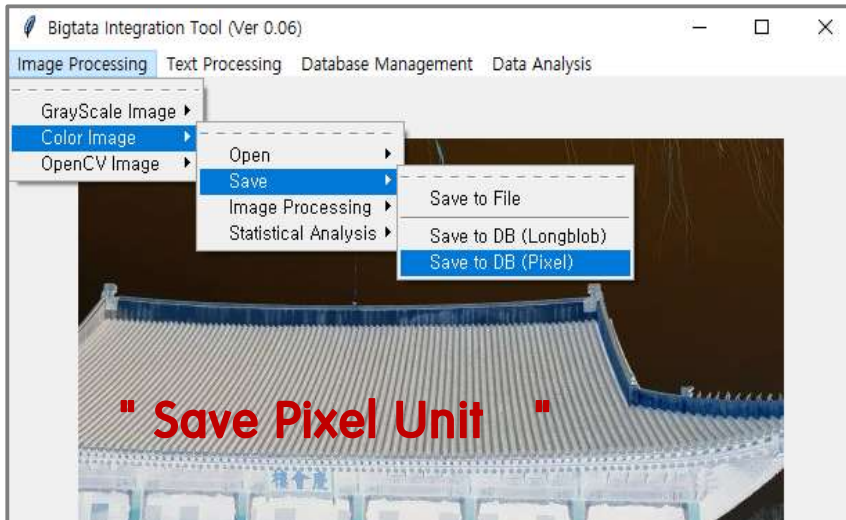
Image Processing (Color)



Output Table

imageName	imageType	xSize	ySize
cat03_256. raw		256	256
256256.jpg	jpg	256	256
field.png	png	512	512
myPhoto.jpg	jpg	512	511

Double Click



< ColorImageTBL >

Id : auto_increment

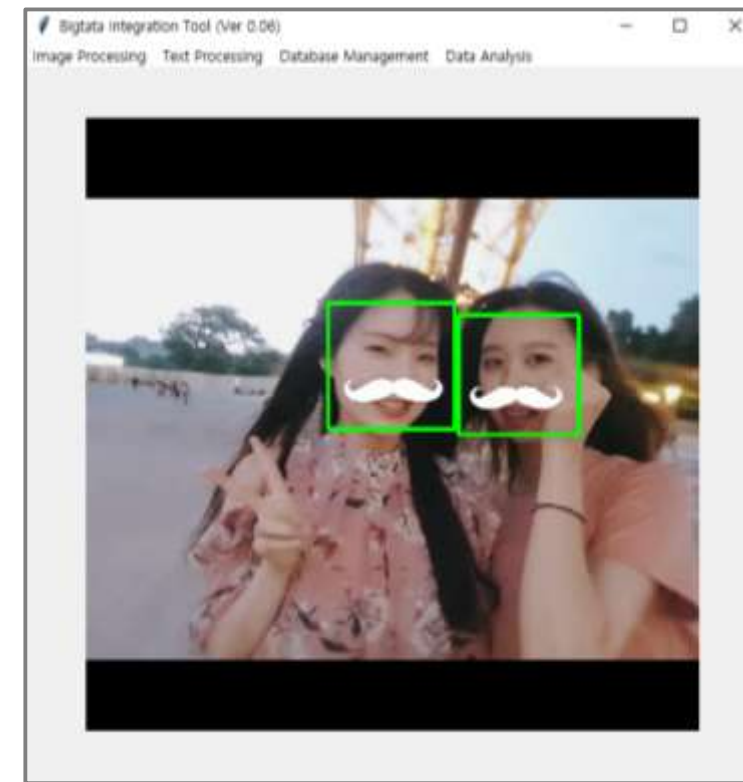
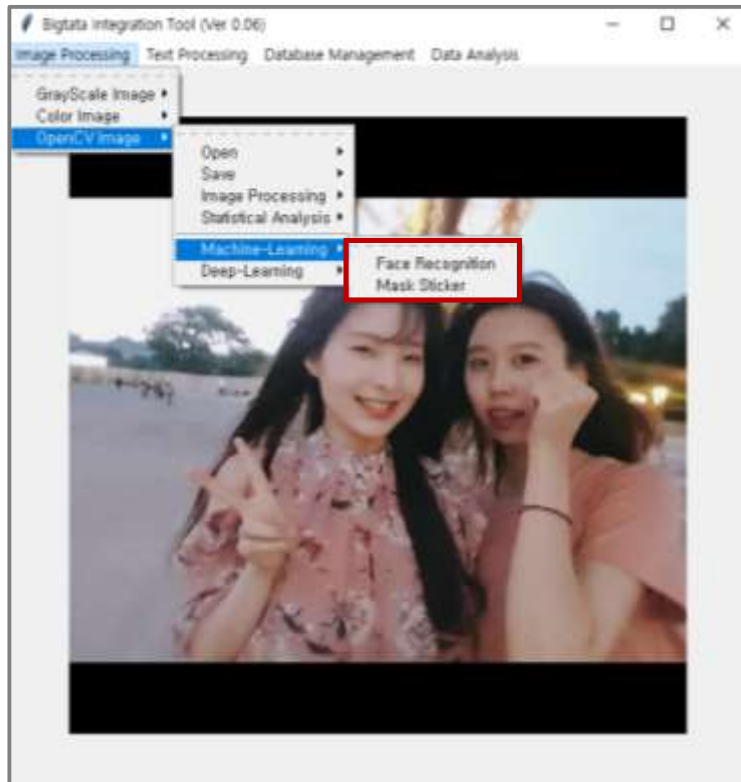
imageName
imageType

xSize : width
ySize : height

X : x-coordinate
Y : y-coordinate

R : red color value
G : green color
B : blue color value

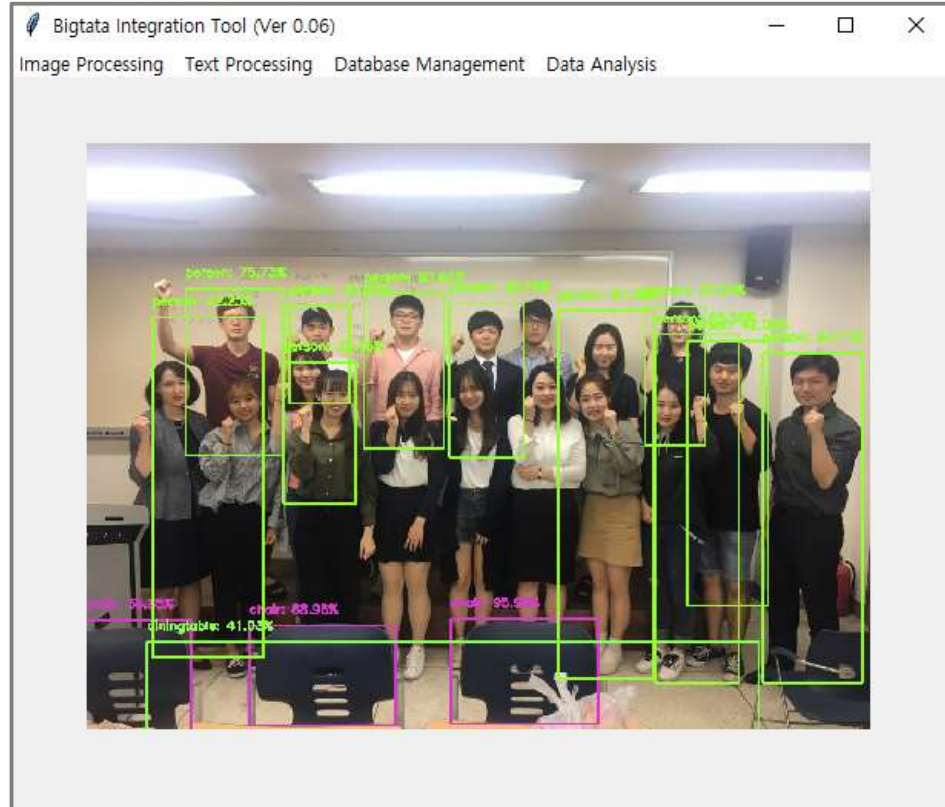
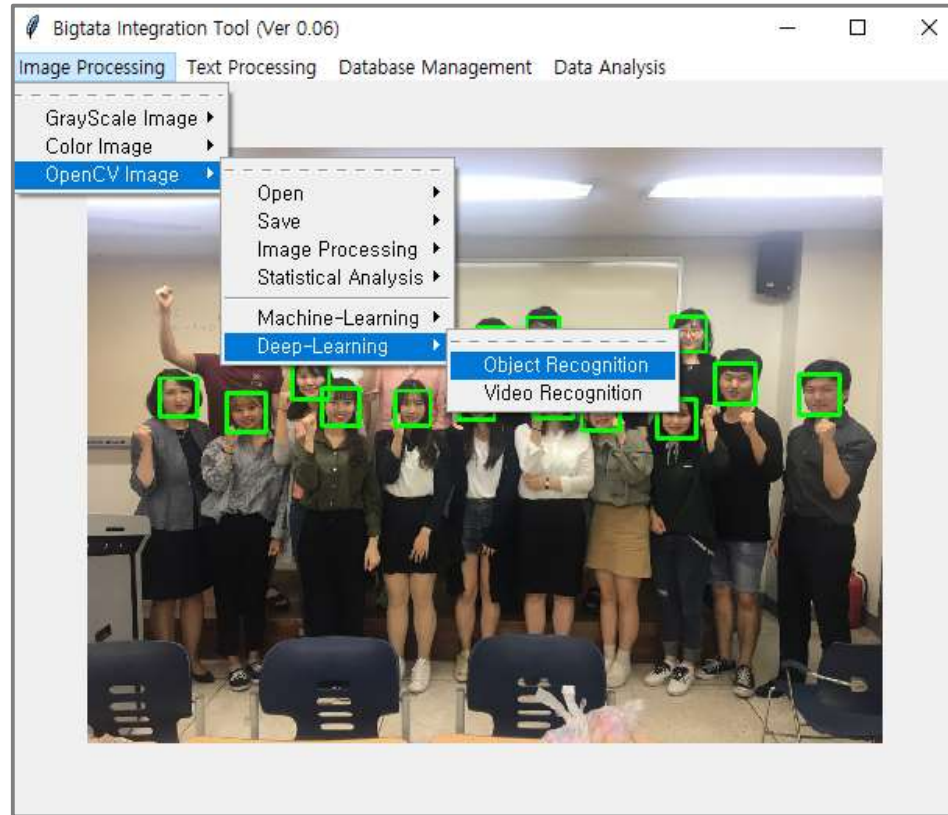
“ Application of Machine-Learning “



Step1 : face recognition

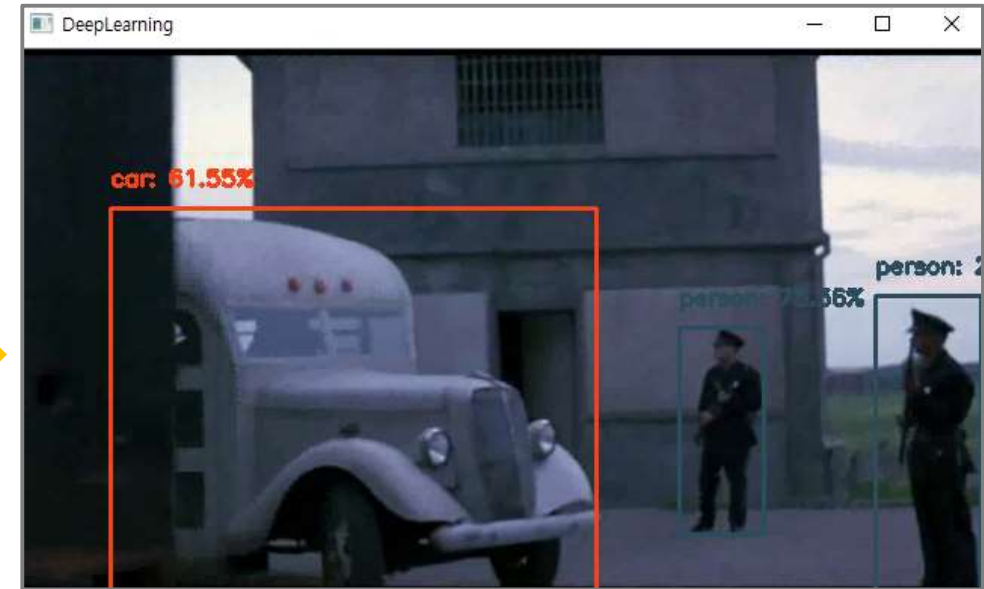
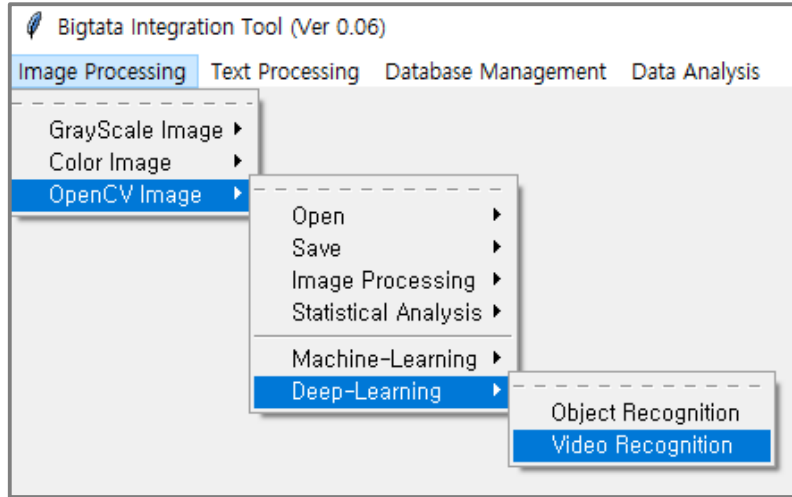
Step2 : Stickers can be attached to the face at the desired position

“ Application of Deep-Learning “



- Step1: Identification Object (such as chair, person)
- Step2 : Displays the probability that an image is an object

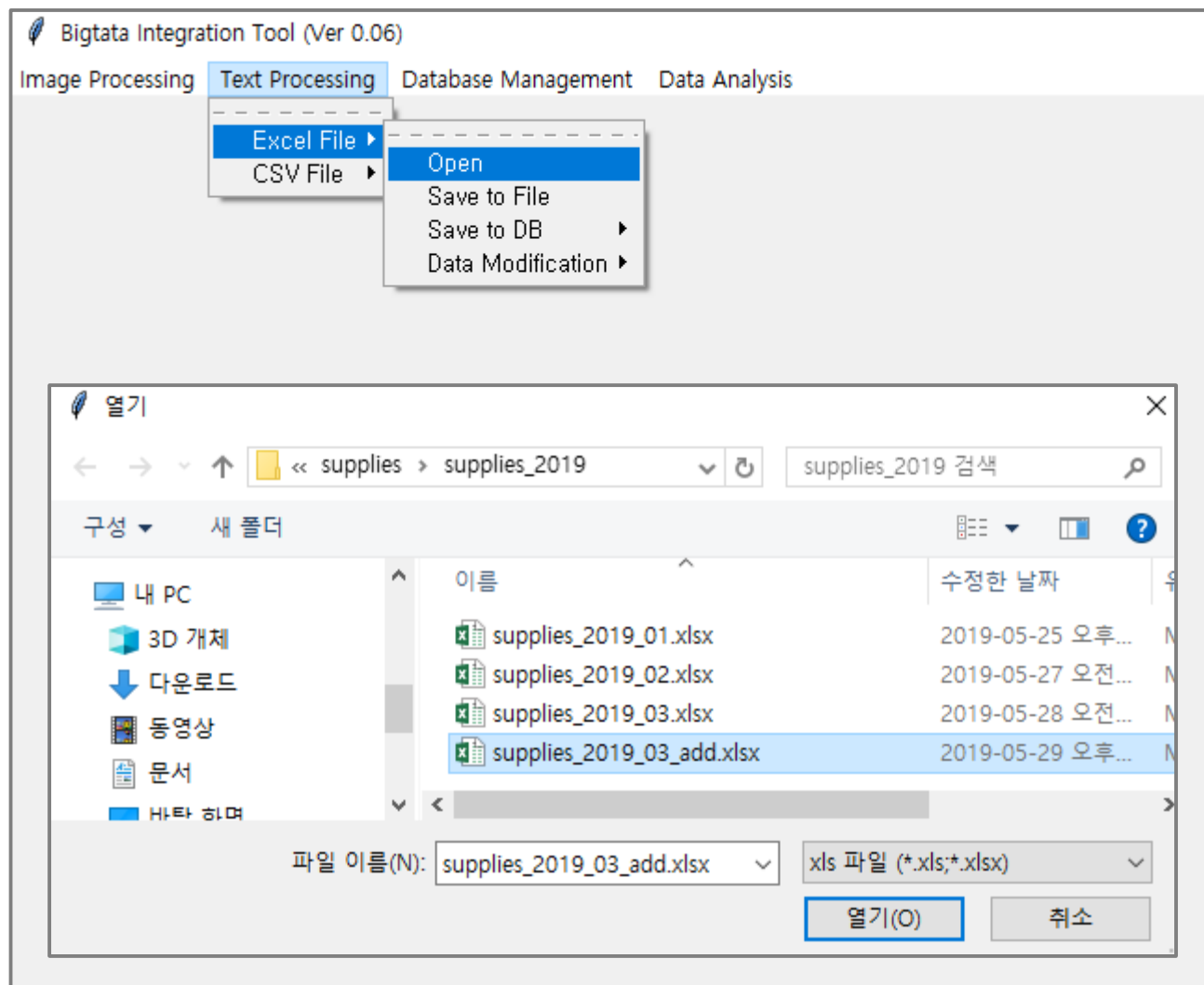
“ Application of Deep-Learning “



Step1 : Recognition of a scene in a video
 Step2: Recognize objects in a single scene

You can check how many times a particular object or person appears in the video

Text Processing (Excel)



The screenshot shows the Bigdata Integration Tool (Ver 0.06) interface. The 'Text Processing' menu is open, showing options: 'Excel File', 'CSV File', 'Open', 'Save to File', 'Save to DB', and 'Data Modification'. Below the menu, a table of supplier data is displayed.

supplier	invoice_num	product_num	cost	purchase_date
all_research	111-5960	6548	256	2019.03.22
Big_Bank	111-5961	1514	1800	2019.03.23
SunPower	111-5962	6543	845	2019.03.24
SunPower	111-5962	4547	247	2019.03.24
coreTech	111-5963	4467	541	2019.03.24
Bluebird	111-5964	2845	222	2019.03.24
all_research	111-5965	4530	124	2019.03.24
alphago	111-5966	8762	454	2019.03.24
all_research	111-5967	1557	560	2019.03.24
bigmarket	111-5968	9865	215	2019.03.25
bin34	111-5968	3251	753	2019.03.25

MODIFICATION
DATABASE

Text Processing (Excel)

Bigdata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

supplier	invoice_num	product_num	cost	purchase_date
all_research	111-5960	6548	251.51	2019.03.22
Big_Bank	111-5961	1514	1577.21	2019.03.23
SunPower	111-5962	6543	548.21	2019.03.24
SunPower	111-5962	4547	112.54	2019.03.24
coreTech	111-5963	4467	214.85	2019.03.24
Bluebird	111-5964	2845	94.21	2019.03.24
all_research	111-5965	4530	452.98	2019.03.24

Excel File
CSV File
Open
Save to File
Save to DB
Data Modification
a 10% increase in costs
a 20% increase in costs
a 20% increase in costs

Modify Excel file directly

Bigdata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

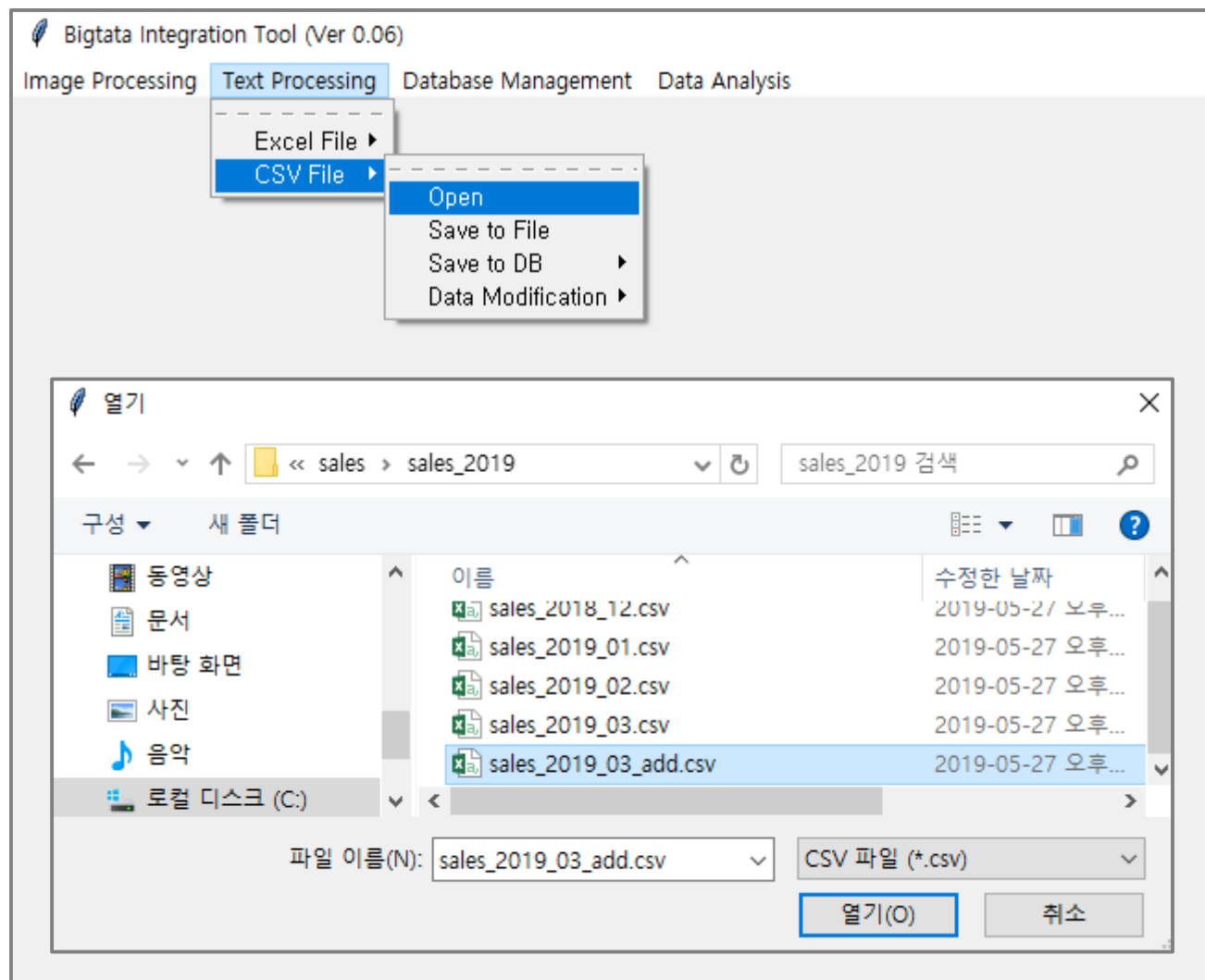
supplier	invoice_num	product_num	cost	purchase_date
all_research	111-5960	6548	251.51	2019.03.22
Big_Bank	111-5961	1514	1577.21	2019.03.23
SunPower	111-5962	6543	548.21	2019.03.24
SunPower	111-5962	4547	112.54	2019.03.24
coreTech	111-5963	4467	214.85	2019.03.24
Bluebird	111-5964	2845	94.21	2019.03.24
all_research	111-5965	4530	452.98	2019.03.24
alphago	111-5966	8762	154.85	2019.03.24
all_research	111-5967	1557	325.24	2019.03.24
bigmarket	111-5968	9865	411.1	2019.03.25
bin34	111-5968	3251	125.21	2019.03.25

Bigdata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

supplier	invoice_num	product_num	cost	purchase_date
all_research	111-5960	6548	276.66	2019.03.22
Big_Bank	111-5961	1514	1734.93	2019.03.23
SunPower	111-5962	6543	603.03	2019.03.24
SunPower	111-5962	4547	123.79	2019.03.24
coreTech	111-5963	4467	236.34	2019.03.24
Bluebird	111-5964	2845	103.63	2019.03.24
all_research	111-5965	4530	498.28	2019.03.24
alphago	111-5966	8762	170.34	2019.03.24
all_research	111-5967	1557	357.76	2019.03.24
bigmarket	111-5968	9865	452.21	2019.03.25
bin34	111-5968	3251	137.73	2019.03.25

Text Processing (CSV)



The screenshot shows the Bigdata Integration Tool (Ver 0.06) interface. The 'Text Processing' menu is open, showing options: 'Excel File', 'CSV File', 'Open', 'Save to File', 'Save to DB', and 'Data Modification'. Below the menu, a table of data is displayed. The table has 5 columns: 'id', 'invoice_num', 'product_num', 'cost', and 'purchase_date'. The data is as follows:

id	invoice_num	product_num	cost	purchase_date
Dabin	100-2011	8963	30	2019-03-24
Dabin	100-2011	3814	367	2019-03-24
Dabin	100-2011	9469	32	2019-03-24
ORACLE	100-2013	3094	306	2019-03-24
MariaDB	100-2014	1488	106	2019-03-24
MariaDB	100-2014	153	284	2019-03-24
TrotQueen	100-2015	2912	192	2019-03-24
Faker	100-2016	8508	191	2019-03-24
Uzi	100-2017	1957	420	2019-03-24
Bloomberg	100-2018	2633	237	2019-03-24
MySQL	100-2019	371	398	2019-03-24
MySQL	100-2019	7866	443	2019-03-24
Access	100-2020	4964	87	2019-03-24

A large downward arrow points from the table to the word 'DATABASE' in red text.

Text Processing (CSV)

Bigtata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

id	inv	num	cost	purchase_date
Dabin	100-2011	3814		9-03-24
Dabin	100-2011	9469		9-03-24
ORACLE	100-2013	3094		9-03-24
MariaDB	100-2014	1488		
MariaDB	100-2014	153	284	20
TrotQueen	100-2015	2912	192	20
Faker	100-2016	8508	191	20
Uzi	100-2017	1957	420	20
Bloomberg	100-2018	2633	237	2019-03-24
MySQL	100-2019	371	398	2019-03-24
MySQL	100-2019	7866	443	2019-03-24
Access	100-2020	4964	87	2019-03-24

Excel File ▶
CSV File ▶

Open
Save to File
Save to DB
Data Modification ▶

sales_2018_12TBL
sales_2019_01TBL
sales_2019_02TBL
sales_2019_03TBL
supplier_2019_01TBL
supplier_2019_02TBL

complete

INSERT complete

확인

Bigtata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

Basic Information ▶
Sales
Supplies
Image Data
Use SQL

sales_2018_12TBL ▶
sales_2019_01TBL ▶
sales_2019_02TBL ▶
sales_2019_03TBL ▶

Select Data
Insert Data
Delete Data

Bigtata Integration Tool (Ver 0.06)

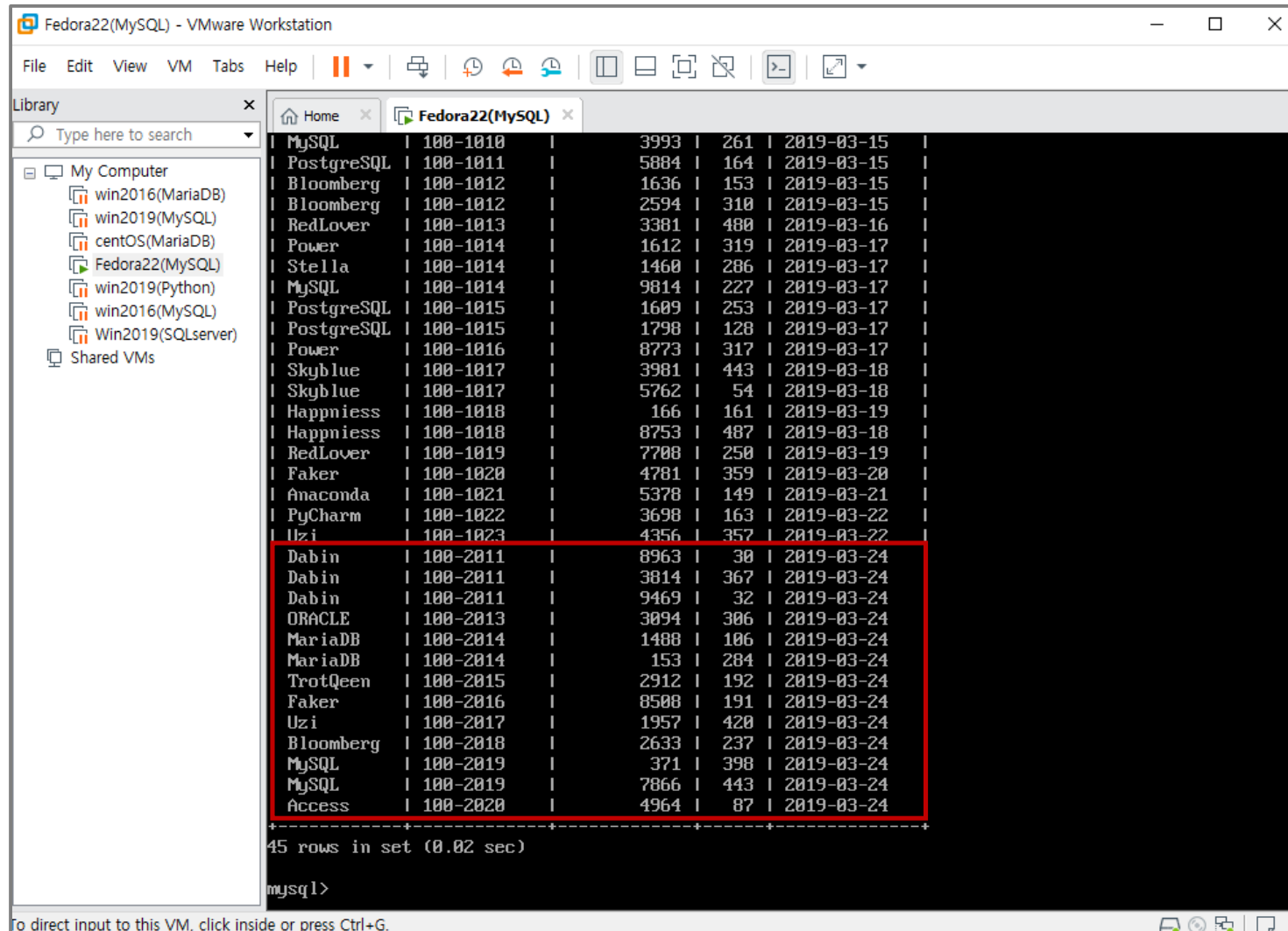
Image Processing Text Processing Database Management Data Analysis

id : SEARCH invoice_num : SEARCH

MySQL	100-1014	9814
PostgreSQL	100-1015	1609
PostgreSQL	100-1015	1798
Power	100-1016	8773
Skyblue	100-1017	3981
Skyblue	100-1017	5762
Happniess	100-1018	166
Happniess	100-1018	8753
RedLover	100-1019	7708
Faker	100-1020	4781
Anaconda	100-1021	5378
PyCharm	100-1022	3698
Uzi	100-1023	4356
Dabin	100-2011	8963
Dabin	100-2011	3814
Dabin	100-2011	9469
ORACLE	100-2013	3094
MariaDB	100-2014	1488
MariaDB	100-2014	153
TrotQueen	100-2015	2912
Faker	100-2016	8508
Uzi	100-2017	1957
Bloomberg	100-2018	2633
MySQL	100-2019	371
MySQL	100-2019	7866
Access	100-2020	4964

Text Processing (CSV)

Direct Check at Fedora
`select * from sales_2019_03TBL;`



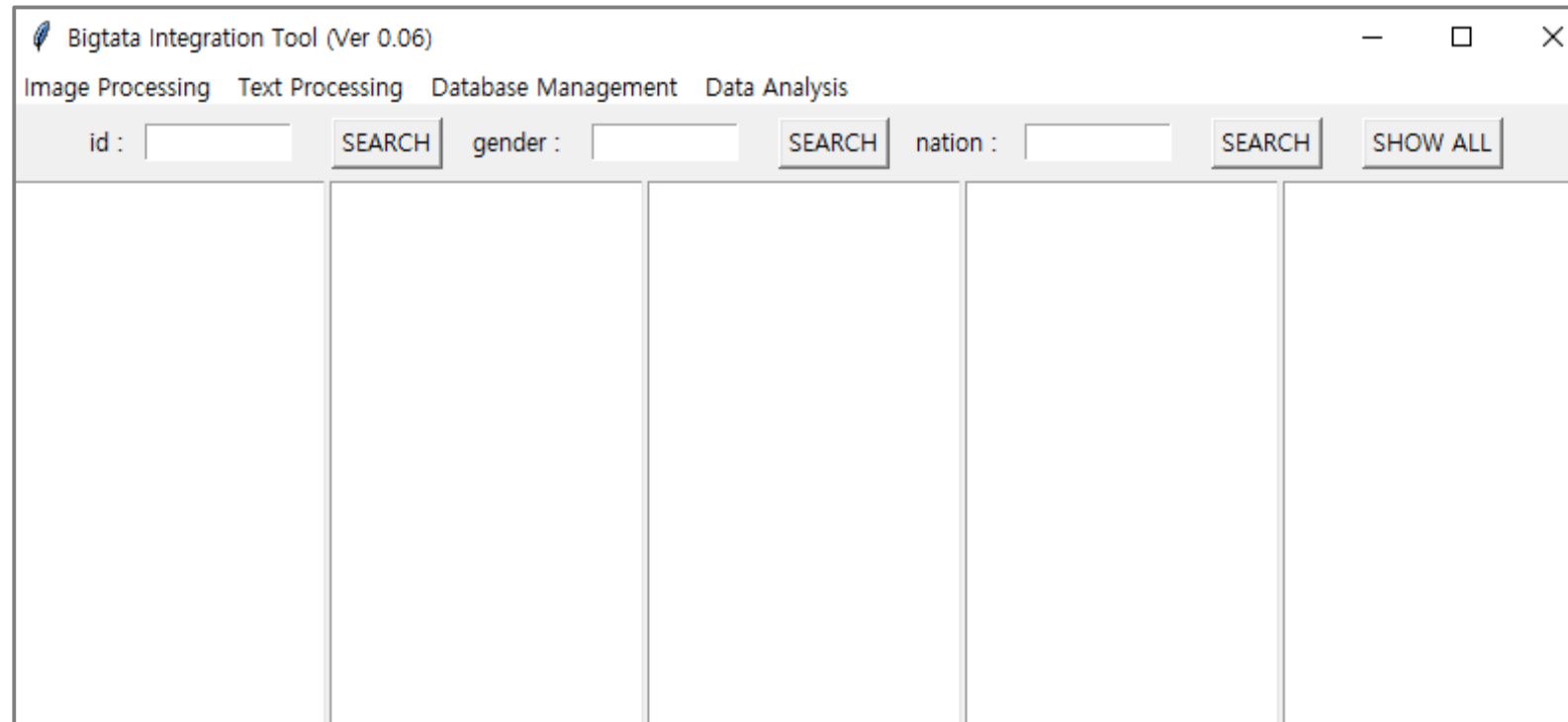
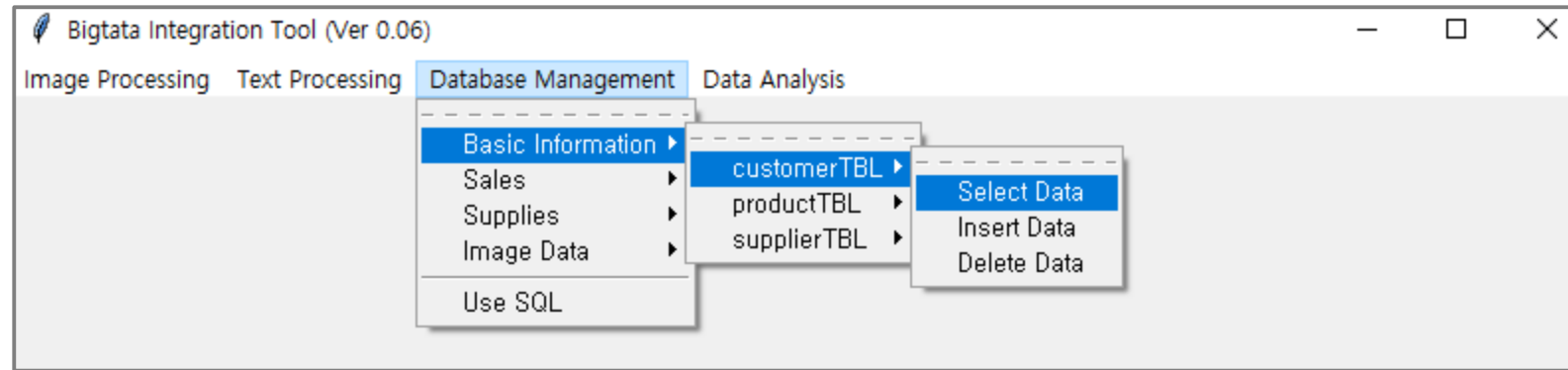
MySQL	100-1010	3993	261	2019-03-15
PostgreSQL	100-1011	5884	164	2019-03-15
Bloomberg	100-1012	1636	153	2019-03-15
Bloomberg	100-1012	2594	310	2019-03-15
RedLover	100-1013	3381	480	2019-03-16
Power	100-1014	1612	319	2019-03-17
Stella	100-1014	1460	286	2019-03-17
MySQL	100-1014	9814	227	2019-03-17
PostgreSQL	100-1015	1609	253	2019-03-17
PostgreSQL	100-1015	1798	128	2019-03-17
Power	100-1016	8773	317	2019-03-17
Skyblue	100-1017	3981	443	2019-03-18
Skyblue	100-1017	5762	54	2019-03-18
Happniess	100-1018	166	161	2019-03-19
Happniess	100-1018	8753	487	2019-03-18
RedLover	100-1019	7708	250	2019-03-19
Faker	100-1020	4781	359	2019-03-20
Anaconda	100-1021	5378	149	2019-03-21
PyCharm	100-1022	3698	163	2019-03-22
Uzi	100-1023	4356	357	2019-03-22
Dabin	100-2011	8963	30	2019-03-24
Dabin	100-2011	3814	367	2019-03-24
Dabin	100-2011	9469	32	2019-03-24
ORACLE	100-2013	3094	306	2019-03-24
MariaDB	100-2014	1488	106	2019-03-24
MariaDB	100-2014	153	284	2019-03-24
TrotQueen	100-2015	2912	192	2019-03-24
Faker	100-2016	8508	191	2019-03-24
Uzi	100-2017	1957	420	2019-03-24
Bloomberg	100-2018	2633	237	2019-03-24
MySQL	100-2019	371	398	2019-03-24
MySQL	100-2019	7866	443	2019-03-24
Access	100-2020	4964	87	2019-03-24

45 rows in set (0.02 sec)

mysql>

To direct input to this VM, click inside or press Ctrl+G.

" CustomerTBL "



Sales_2019_03TBL

	A	B	C
1	id	invoice_nu	product_n
2	Dabin	100-1001	3672
3	Bloomberg	100-1002	7759
4	Bloomberg	100-1002	4859
5	MySQL	100-1003	5358
6	Stella	100-1004	251
7	Teemo	100-1005	2864
8	SQL_Serve	100-1006	2120
9	Bloomberg	100-1007	2737
10	Bloomberg	100-1007	8143
11	Bloomberg	100-1007	6319
12	SQL_Serve	100-1008	9654
13	Dabin	100-1009	8008
14	MySQL	100-1010	3993
15	PostgreSQ	100-1011	5884
16	Bloomberg	100-1012	1636
17	Bloomberg	100-1012	2594
18	RedLover	100-1013	3381
19	Power	100-1014	1612
20	Stella	100-1014	1460
21	MySQL	100-1014	9814
22	PostgreSQ	100-1015	1609

" CustomerTBL "

Bigdata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

id : SEARCH gender : SEARCH nation : SEARCH **SHOW ALL**

Dabin	Jeon Dabin	26	F	Korea
MySQL	Oracle	45	F	America
MariaDB	MariaDB	19	M	America
PostgreSQL	PostgreSQL	61	M	Germany
SQL_Server	Microsoft	33	M	Canada
DB2	IBM	76	M	France
Access	Microsoft	37	M	America
SQLite	SQLite	22	F	Canada
Teemo	Kim Jinyoung	26	F	Korea
Bloomberg	Bloomberg	38	M	America
PyCharm	Python	36	F	Canada
Anaconda	Python	27	F	France
Stella	Jenifer	19	F	France
Power	Daniel Kim	29	M	America
Happniess	Rora	27	F	Canada
RedLover	Jang Chen	37	M	China
Failytail	Jo Heena	32	F	Korea
Skyblue	Kang Minji	38	F	Korea
Titanic	Bella	25	F	Canada
Mushroom	Jeff	27	M	America
Tiger	Andrew	28	M	America
Faker	Lee	25	M	Korea
Uzi	Zihao	23	M	China
TrotQueen	Song	32	F	Korea
ORACLE	Oracle	44	M	America

Fedora (MySQL)

```
mysql> select * from customerTBL;
```

id	name	age
Dabin	Jeon Dabin	26
MySQL	Oracle	45
MariaDB	MariaDB	19
PostgreSQL	PostgreSQL	61
SQL_Server	Microsoft	33
DB2	IBM	76
Access	Microsoft	37
SQLite	SQLite	22
Teemo	Kim Jinyoung	26
Bloomberg	Bloomberg	38
PyCharm	Python	36
Anaconda	Python	27
Stella	Jenifer	19
Power	Daniel Kim	29
Happniess	Rora	27
RedLover	Jang Chen	37
Failytail	Jo Heena	32
Skyblue	Kang Minji	38
Titanic	Bella	25
Mushroom	Jeff	27
Tiger	Andrew	28
Faker	Lee	25
Uzi	Zihao	23
TrotQueen	Song	32
ORACLE	Oracle	44
Dabin2	Jeon Dabin	26

26 rows in set (0.00 sec)

" CustomerTBL "

Bigtata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

id : SEARCH gender : SEARCH nation : SEARCH SHOW ALL

Dabin	Jeon Dabin	26	F	Korea
MySQL	Oracle	45	F	America
SQLite	SQLite	22	F	Canada
Teemo	Kim Jinyoung	26	F	Korea
PyCharm	Python	36	F	Canada
Anaconda	Python	27	F	France
Stella	Jenifer	19	F	France
Happniess	Rora	27	F	Canada
Failytail	Jo Heena	32	F	Korea
Skyblue	Kang Minji	38	F	Korea
TrotQueen	Song	32	F	Korea
Dabin2	Jeon Dabin	26	F	Korea

Perform
SELECT
command easily

SQL command

```
SELECT * FROM
customerTBL WHERE
gender = "F" ;
```

Bigtata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

id : SEARCH gender : SEARCH nation : SEARCH SHOW ALL

Dabin	Jeon Dabin	26	F	Korea
Teemo	Kim Jinyoung	26	F	Korea
Failytail	Jo Heena	32	F	Korea
Skyblue	Kang Minji	38	F	Korea
Faker	Lee	25	M	Korea
TrotQueen	Song	32	F	Korea
Dabin2	Jeon Dabin	26	F	Korea

View the data
that you searched
legibly

" CustomerTBL "

CustomerTBL : Insert Data

id : name : age : gender : nation :

Bigtata Integration Tool (Ver 0.06)

Image Processing Text Processing Database Management Data Analysis

id : gender : nation :

Dabin	Jeon Dabin	26	F	Korea
MySQL	Oracle	45	F	America
MariaDB	MariaDB	19	M	America
PostgreSQL	PostgreSQL	61	M	Germany
SQL_Server	Microsoft	33	M	Canada
DB2	IBM	76	M	France
Access	Microsoft	37	M	America
SQLite	SQLite	22	F	Canada
Teemo	Kim Jinyoung	26	F	Korea
Bloomberg	Bloomberg	38	M	America
PyCharm	Python	36	F	Canada
Anaconda	Python	27	F	France
Stella	Jenifer	19	F	France
Power	Daniel Kim	29	M	America
Happniess	Rora	27	F	Canada
RedLover	Jang Chen	37	M	China
Failytail	Jo Heena	32	F	Korea
Skyblue	Kang Minji	38	F	Korea
Mushroom	Jeff	27	M	America
Tiger	Andrew	28	M	America
Faker	Lee	25	M	Korea
Uzi	Zihao	23	M	China
TrotQueen	Song	32	F	Korea
ORACLE	Oracle	44	M	America
Dabin2	Jeon Dabin	26	F	Korea

CustomerTB...

* CAUTION *

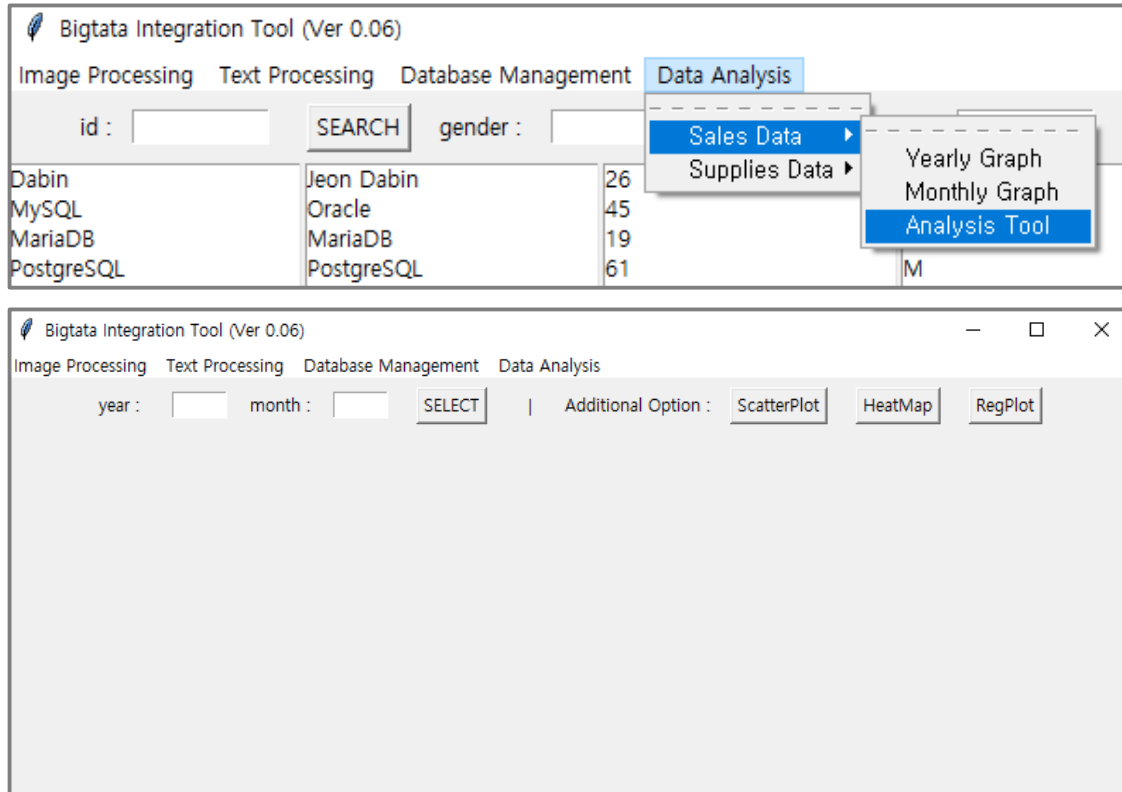
id :

Perform
INSERT ,DELETE
command easily

SQL command

INSERT INTO
customerTBL VALUES
("Dabin2", "Jeon Dabin",
26, "F", "Korea");

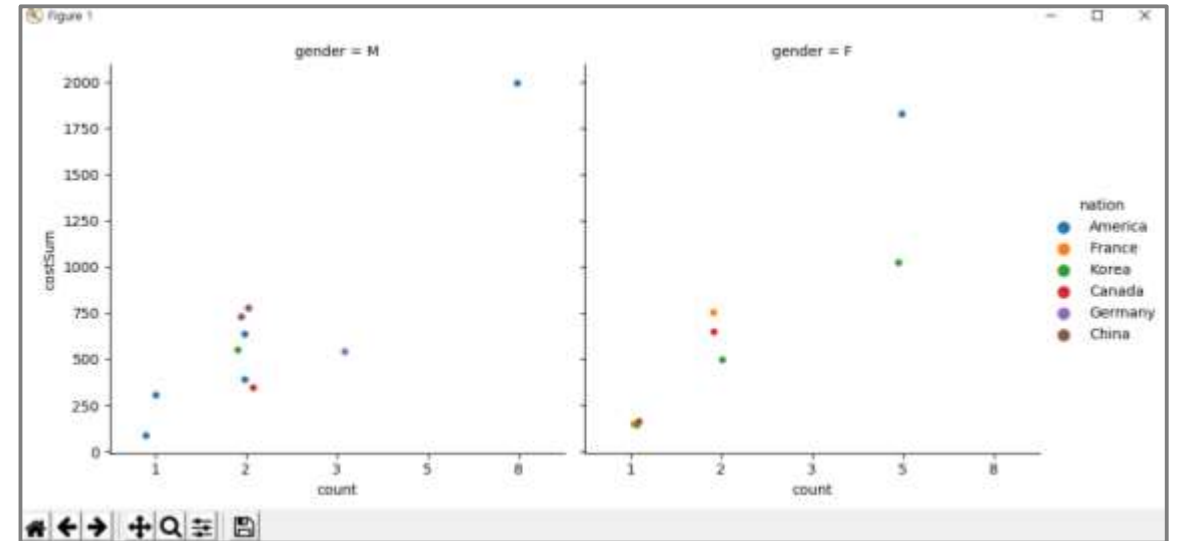
Data Analysis (DB table)



"The tool for analyzing data in the database"

We can check the results of the statistical analysis through various graphs.

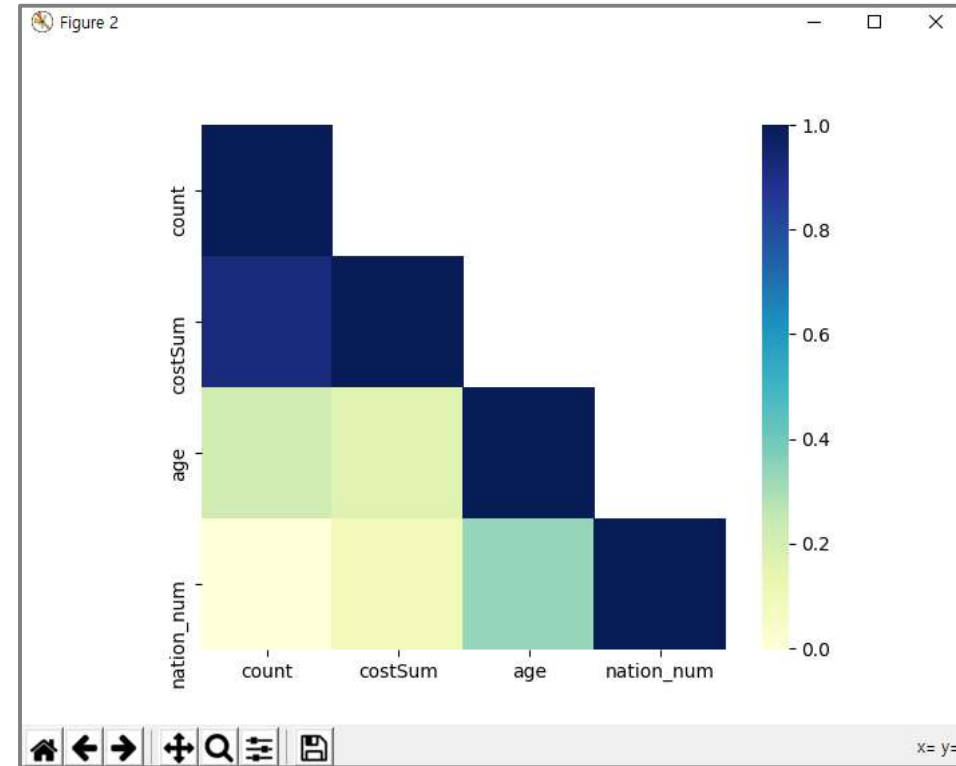
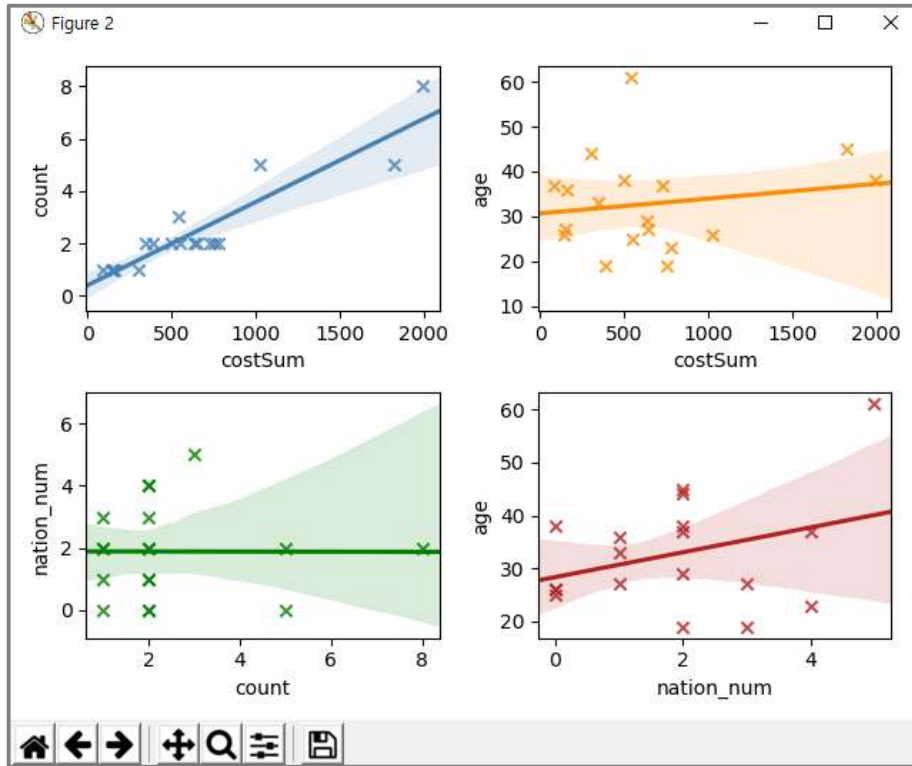
Data Analysis (DB table)



" Choose year and month that you to analysis "

In this window, you can see the count graph about nationality and age

Data Analysis (DB table)



" Detailed graph about year and month that you choose "

graphs that show the link between elements

INTEGRATION TOOL (Big Data)

