



**Kampus
Merdeka**
INDONESIA JAYA



SQL STATEMENT: INSERT

Bachelor of Information Systems

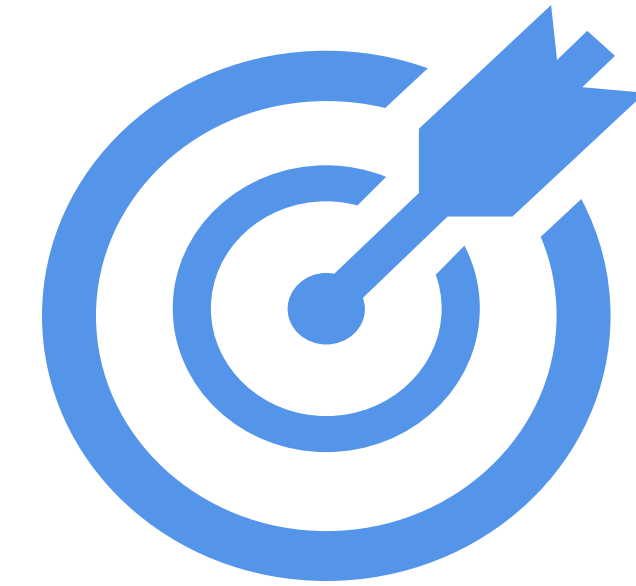


INTRODUCTION TO
DATABASE AND INFORMATION SYSTEM



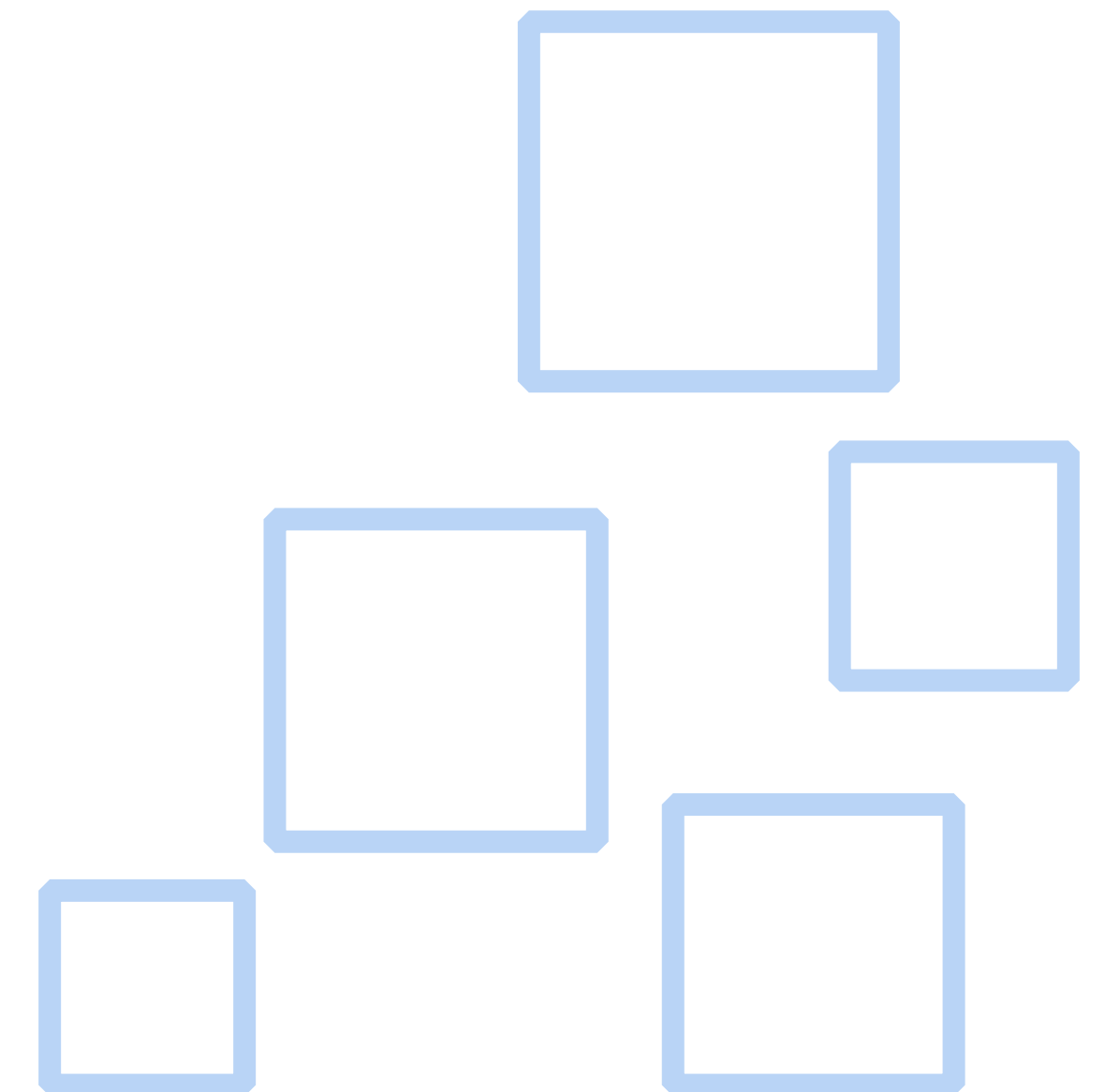
Learning Objective(s)

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This material should address the following question(s).

- ? How do we insert new records in a database table in SQL?



Question



How do we **insert new records** in a database table in SQL?

INSERT INTO

- SQL tables store data in rows, one row after another.
- The **INSERT INTO** statement is used to add new rows of data to a table in the database.
- Syntax:
INSERT INTO TableName
VALUES (value1, value2, ...);
 - Make sure the order of the values is in the same order as the columns in the table.

Example:

Table named **Books** stores information about books.

Books

isbn_13	title	authors	publisher	published_year	edition
978-9380931913	Data Mining: Co...	Jiawei Han, Micheline Kamber	Morgan Kaufmann	2011	3
978-1945051753	SQL QuickStart...	Walter Shields	ClydeBank Media LLC	2019	1
978-0078022128	Software Engine...	Roger S. Pressman, Bruce Maxim	McGraw-Hill	2014	8
978-0078022159	Database System...	A. Silberschatz, H. F. Korth, S. Sudarshan	McGraw-Hill	2019	7

Insert a new row to **Books** table with values:

"978-0131015142", "Database Processing Fundamentals, Design & Implementation", "David M. Kroenke", "Prentice Hall", 2004, 9

```
INSERT INTO Books  
VALUES ("978-0131015142", "Database Processing  
Fundamentals, Design & Implementation", "David  
M. Kroenke", "Prentice Hall", 2004, 9);
```

isbn_13	title	authors	publisher	published_year	edition
978-9380931913	Data Mining: Co...	Jiawei Han, Micheline Kamber	Morgan Kaufmann	2011	3
978-1945051753	SQL QuickStart...	Walter Shields	ClydeBank Media LLC	2019	1
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978-0131015142	Database Proces...	David M. Kroenke	Prentice Hall	2004	9

INSERT INTO

- Alternatively, you can specify the table's column names in the **INSERT INTO** statement:
- Syntax:
INSERT INTO TableName (column1, column2, ...)
VALUES (value1, value2, ...);
 - You can specify your own column order, as long as the values are specified in the same order as the columns.

Example:

Table named **Books** stores information about books.

Books

isbn_13	title	authors	publisher	published_year	edition
978-9380931913	Data Mining: Co...	Jiawei Han, Micheline Kamber	Morgan Kaufmann	2011	3
978-1945051753	SQL QuickStart...	Walter Shields	ClydeBank Media LLC	2019	1
978-0078022128	Software Engine...	Roger S. Pressman, Bruce Maxim	McGraw-Hill	2014	8
978-0078022159	Database System...	A. Silberschatz, H. F. Korth, S. Sudarshan	McGraw-Hill	2019	7

Insert a new row to **Books** table with values:

"978-0131015142", "Database Processing Fundamentals, Design & Implementation", "David M. Kroenke", "Prentice Hall", 2004, 9

```
INSERT INTO Books (isbn_13, title, authors, publisher, published_year, edition)
VALUES ("978-0131015142", "Database Processing Fundamentals, Design & Implementation", "David M. Kroenke", "Prentice Hall", 2004, 9);
```

isbn_13	title	authors	publisher	published_year	edition
978-9380931913	Data Mining: Co...	Jiawei Han, Micheline Kamber	Morgan Kaufmann	2011	3
978-1945051753	SQL QuickStart...	Walter Shields	ClydeBank Media LLC	2019	1
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978-0131015142	Database Proces...	David M. Kroenke	Prentice Hall	2004	9

INSERT INTO

- It is also possible to insert data into **specific** columns only.

Example:

Table named **Books** stores information about books.

Books

isbn_13	title	authors	publisher	published_year	edition
978-9380931913	Data Mining: Co...	Jiawei Han, Micheline Kamber	Morgan Kaufmann	2011	3
978-1945051753	SQL QuickStart...	Walter Shields	ClydeBank Media LLC	2019	1
978-0078022128	Software Engine...	Roger S. Pressman, Bruce Maxim	McGraw-Hill	2014	8
978-0078022159	Database System...	A. Silberschatz, H. F. Korth, S. Sudarshan	McGraw-Hill	2019	7

Insert a new row to **Books** table with value of **title** is "Database Processing Fundamentals, Design & Implementation"

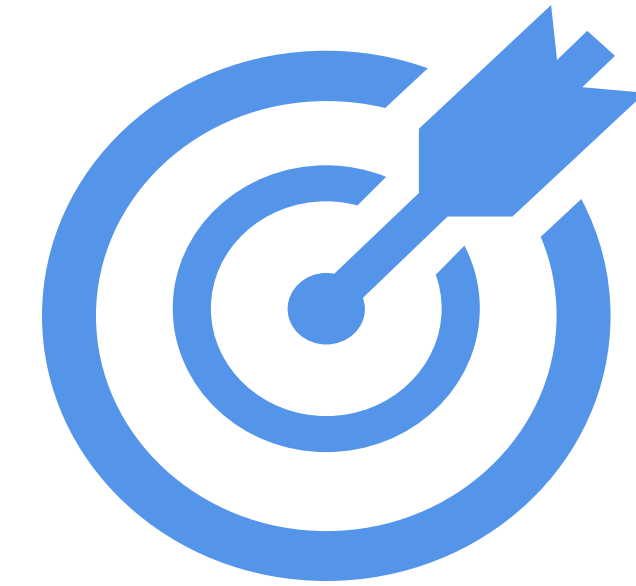
```
INSERT INTO Books (title)
VALUES ("Database Processing Fundamentals,
Design & Implementation");
```

isbn_13	title	authors	publisher	published_year	edition
978-9380931913	Data Mining: Co...	Jiawei Han, Micheline Kamber	Morgan Kaufmann	2011	3
978-1945051753	SQL QuickStart...	Walter Shields	ClydeBank Media LLC	2019	1
978-0078022128	Software Engine...	Roger S. Pressman, Bruce Maxim	McGraw-Hill	2014	8
978-0078022159	Database System...	A. Silberschatz, H. F. Korth, S. Sudarshan	McGraw-Hill	2019	7
<i>null</i>	Database Proces...	<i>null</i>	<i>null</i>	<i>null</i>	<i>null</i>

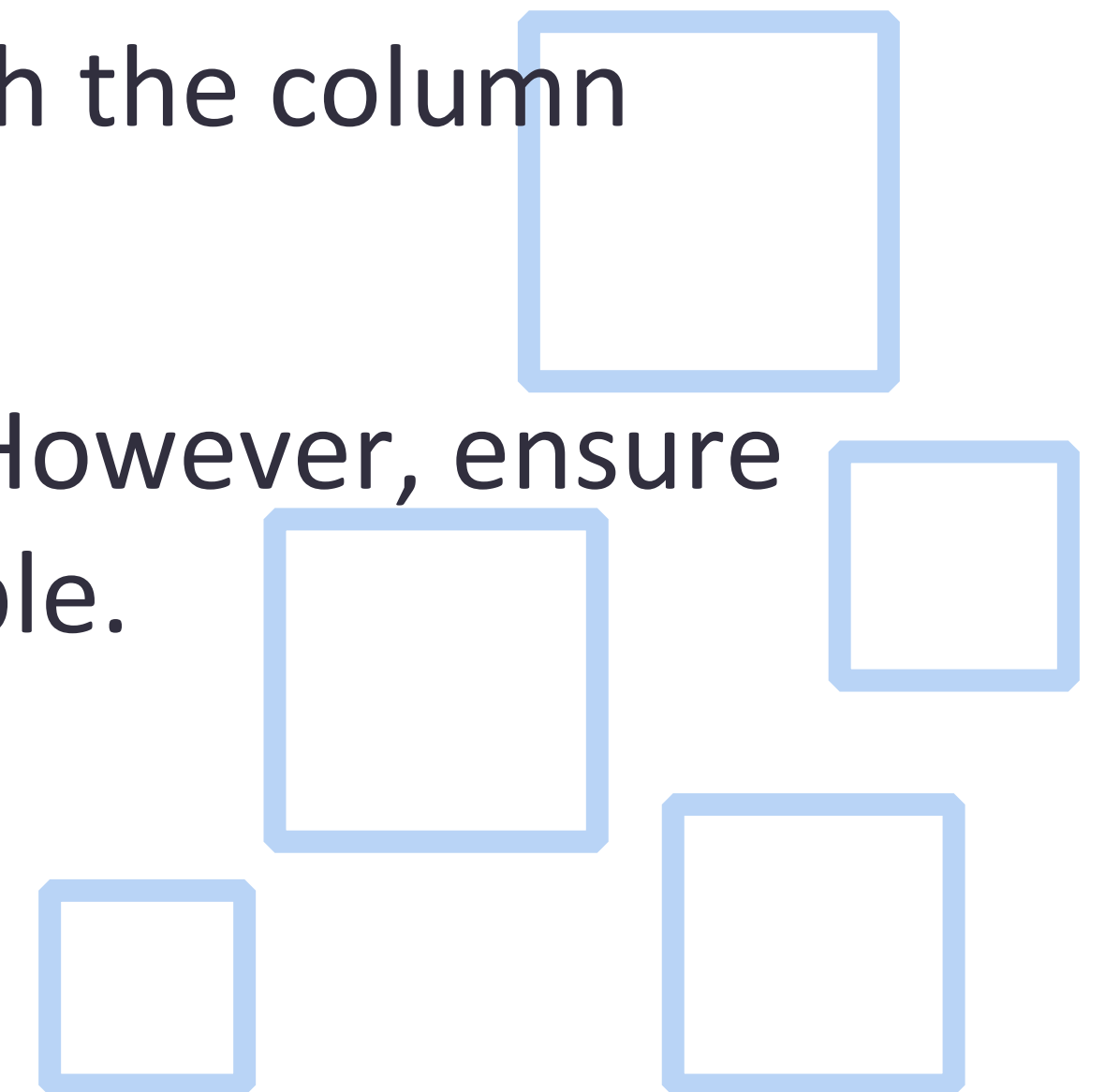
All columns except the *title* column automatically became ***null*** because we didn't provide any value for that column.

Conclusion

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- ✓ The **INSERT INTO** statement is used to insert new records in a database table in SQL.
- ✓ We can write an **INSERT INTO** statement with specifying both the column names and the values to be inserted.
- ✓ We do not need to specify the column names in the query. However, ensure the order of the values is the same as the columns in the table.
- ✓ It is possible to only insert data in specific columns.

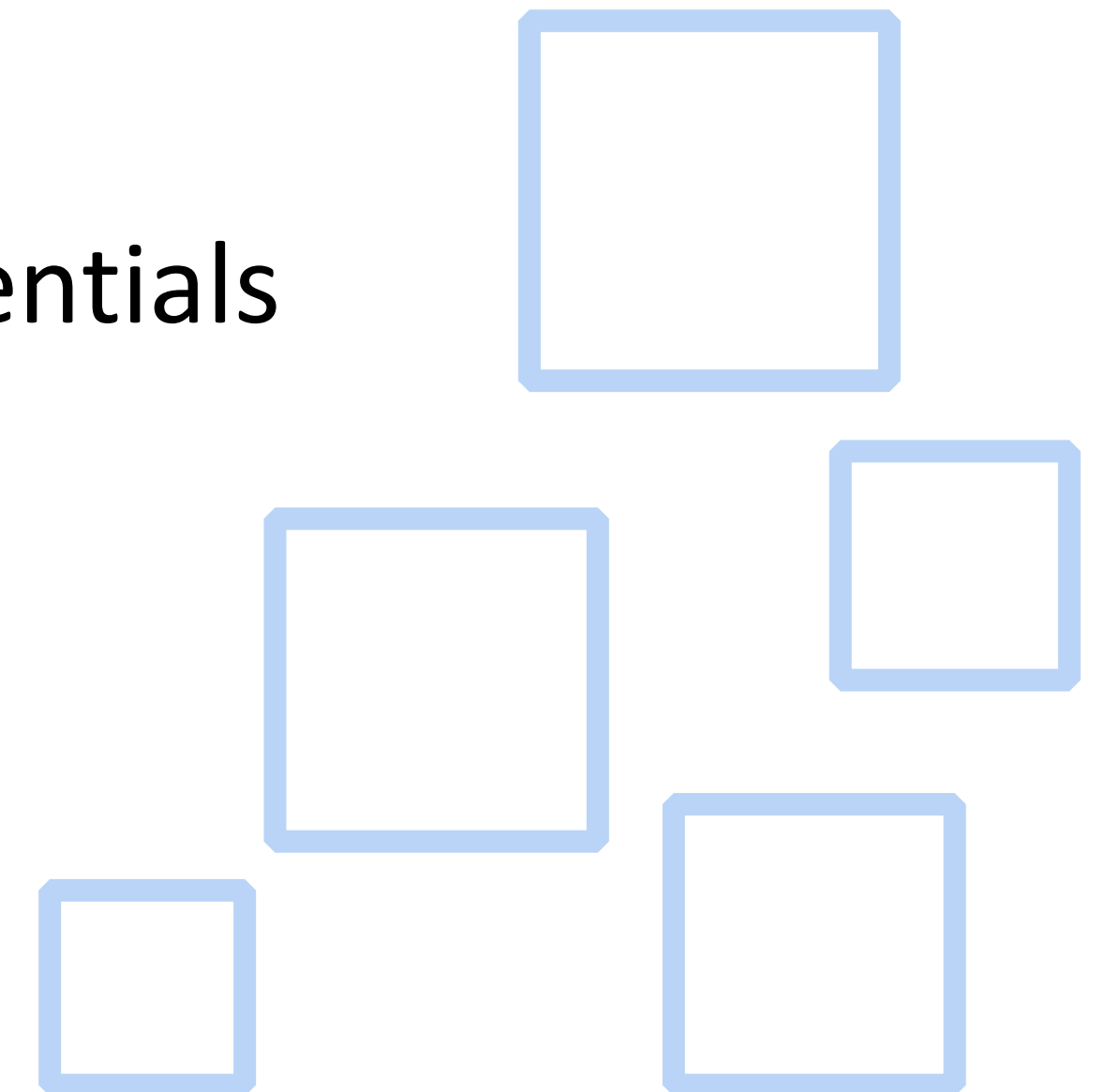


References

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- R, Elmasri, et. al., Fundamentals of Database Systems.
- A. Silberschatz, et. al., Database System Concepts.
- R. K. Rainer, et. al., Introduction to Information Systems.
- G. M. Marakas et. al., Introduction to Information Systems: Essentials for The e-Business Enterprise.

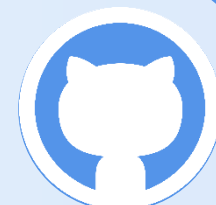


Course



Mario E. S. Simaremare

@simaremare



Lecturer



Samuel I. G. Situmeang

@exemuel

