

# Stored Routines - Conclusion

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## TECHNICAL DIFFERENCES

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stored procedure

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stored procedure

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## TECHNICAL DIFFERENCES

stored procedure

user-defined  
function

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## TECHNICAL DIFFERENCES

stored procedure

user-defined  
function

returns a value

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## TECHNICAL DIFFERENCES

stored procedure	user-defined function
does not return a value	returns a value

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<code>CALL procedure;</code>	



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stored procedure	user-defined function
does not return a value	returns a value
<code>CALL procedure;</code>	<code>SELECT function;</code>

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## CONCEPTUAL DIFFERENCES

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can have *multiple* OUT  
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stored procedure	user-defined function
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## CONCEPTUAL DIFFERENCES

stored procedure	user-defined function
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- if you need to obtain more than one value as a result of a calculation, you are better off *using a procedure*
- if you need to just one value to be returned, then you can *use a function*

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- how about involving an INSERT, an UPDATE, or a DELETE statement?
  - in those cases, the operation performed will apply changes to the data in your database
  - there will be no value, or values, to be returned and displayed to the user

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user-defined  
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TECHNICAL DIFFERENCE

# Stored Routines - Conclusion

stored procedure

user-defined  
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## TECHNICAL DIFFERENCE

CALL procedure;

SELECT function;

# Stored Routines - Conclusion

stored procedure

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## TECHNICAL DIFFERENCE

CALL procedure;

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## CONCEPTUAL DIFFERENCE

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## TECHNICAL DIFFERENCE

CALL procedure;

SELECT function;

## CONCEPTUAL DIFFERENCE

- you can easily include a function as one of the columns inside a SELECT statement

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stored procedure

user-defined  
function

## TECHNICAL DIFFERENCE

CALL procedure;

SELECT function;

## CONCEPTUAL DIFFERENCE

- including a procedure in a SELECT statement is impossible

- you can easily include a function as one of the columns inside a SELECT statement

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- once you become an advanced SQL user, and have gained a lot of practice, you will appreciate the advantages and disadvantages of both types of programs

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- you will encounter many cases where you should choose between procedures and functions

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- what we did in this section was to lay the foundation of the relevant syntax, as well as performing exercises on the practical aspects of these tools