As you learnt in this video, the syntax for writing a UDF is as follows:

* **DELIMITER** $$
* **CREATE** **FUNCTION** function\_name(func\_parameter1, func\_parameter2, ...)
* **RETURN** datatype [**characteristics**]
* /\* func\_body \*/
* **BEGIN**
* <**SQL** Statements>
* **RETURN** expression;
* **END** $$
* **DELIMITER** ;
* **CALL** function\_name;

Remember the following points:

* The CREATE FUNCTION is also a DDL statement.
* The function body must contain one RETURN statement.
* A case statement is preferable if you just need to categorise existing data values based on certain parameters.
* A UDF using case statements is preferable if you need to categorise existing as well as incoming data values based on certain parameters.

Which line has an error?

1. DROP FUNCTION IF EXISTS example $$  
2. CREATE FUNCTION example (param INT) RETURNS VARCHAR  
3.  BEGIN  
4.  DECLARE new\_username VARCHAR(32);  
5.    SELECT username  
6.      INTO new\_username  
7.      FROM users  
8.      WHERE ID = param;  
9.      RETURN COALESCE(new\_username, 'Username not found');  
10. END $$

You can learn about the COALESCE function through [this](https://dev.mysql.com/doc/refman/8.0/en/comparison-operators.html) link.

<https://dev.mysql.com/doc/refman/8.0/en/comparison-operators.html>

use census\_uat;

Delimiter $$

DROP FUNCTION IF EXISTS example $$

CREATE FUNCTION example (param INT) RETURNS VARCHAR(50)

Deterministic

BEGIN

DECLARE new\_username VARCHAR(32);

SELECT name

INTO new\_username

FROM citizens

WHERE ID = param;

RETURN COALESCE(new\_username, 'Username not found');

END $$

Delimiter ;

select example(1) from citizens where id =1 ;