|| LAB 3.1 || 08/28/1019

-- 1. STORE PROCEDURE: fetch\_animal\_parents

-- IN: animal id

-- Display if both parents exist -> show parent's name (both mom and dad)

-- Else if only one of the parent exist -> show their name

-- Else show -> No parents

DELIMITER |

CREATE PROCEDURE fetch\_animal\_parents(IN p\_id SMALLINT(6))

BEGIN

# instanced variables (child, mother, father)

DECLARE var\_child\_name VARCHAR(50) DEFAULT NULL;

DECLARE var\_mom\_name VARCHAR(50) DEFAULT NULL;

DECLARE var\_dad\_name VARCHAR(50) DEFAULT NULL;

# query to store parent names

SELECT m.name, f.name INTO var\_mom\_name, var\_dad\_name

FROM animal a

LEFT JOIN animal m

ON a.mother\_id = m.id

JOIN animal f

ON a.father\_id = f.id

WHERE a.id = p\_id;

# query to store child name

SELECT name INTO var\_child\_name

FROM animal

WHERE id = p\_id;

# conditional if statements

IF var\_mom\_name IS NOT NULL AND var\_dad\_name IS NOT NULL THEN

SELECT CONCAT\_WS(' | ', var\_mom\_name, var\_dad\_name) AS 'mom and dad';

ELSEIF var\_mom\_name IS NOT NULL AND var\_dad\_name IS NULL THEN

SELECT var\_mom\_name AS 'mother';

ELSEIF var\_mom\_name IS NULL AND var\_dad\_name IS NOT NULL THEN

SELECT var\_dad\_name AS 'father';

ELSE

SELECT CONCAT(var\_child\_name, ' has no parents') AS result;

END IF;

END |

DELIMITER ;

DROP PROCEDURE fetch\_animal\_parents;

CALL fetch\_animal\_parents(3);

-- -------------------------------------------------------------------------------------------------------------------------------------------------------------------------

-- 2. STORE PROCEDURE: fetch\_animal\_group\_of\_age

-- IN: animal id

-- Display: Animal group of age

-- CASE: 'age'

-- 1. 2006-2007 -> Group 1

-- 2. 2007-2008 -> Group 2

-- 3. 2008-2009 -> Group 3

-- 4. 2009-2010 -> Group 4

-- 5. 2010-2011 -> Group 5

-- 6. 2011-2012 -> Group 6

-- 7. 2012-2013 -> Group 7

-- 8. 2014-2015 -> Group 8

-- 9. 2015-2016 -> Group 9

-- 10. 2016-2017 -> Group 10

-- 11. 2017-2018 -> Group 11

DELIMITER |

CREATE PROCEDURE fetch\_animal\_group\_of\_age(IN p\_id SMALLINT(6))

BEGIN

DECLARE var\_dob YEAR;

SELECT YEAR(dob) INTO var\_dob

FROM animal

WHERE id = p\_id;

CASE

WHEN var\_dob >= 2006 AND var\_dob < 2007 THEN SELECT 'group 1';

WHEN var\_dob >= 2007 AND var\_dob < 2008 THEN SELECT 'group 2';

WHEN var\_dob >= 2008 AND var\_dob < 2009 THEN SELECT 'group 3';

WHEN var\_dob >= 2009 AND var\_dob < 2010 THEN SELECT 'group 4';

WHEN var\_dob >= 2010 AND var\_dob < 2011 THEN SELECT 'group 5';

WHEN var\_dob >= 2011 AND var\_dob < 2012 THEN SELECT 'group 6';

WHEN var\_dob >= 2012 AND var\_dob < 2013 THEN SELECT 'group 7';

WHEN var\_dob >= 2014 AND var\_dob < 2015 THEN SELECT 'group 8';

WHEN var\_dob >= 2015 AND var\_dob < 2016 THEN SELECT 'group 9';

WHEN var\_dob >= 2016 AND var\_dob < 2017 THEN SELECT 'group 10';

WHEN var\_dob >= 2017 AND var\_dob < 2018 THEN SELECT 'group 11';

END CASE;

END |

DELIMITER ;

DROP PROCEDURE fetch\_animal\_group\_of\_age;

CALL fetch\_animal\_group\_of\_age(25);

select id, YEAR(dob) FROM animal; -- test

-- -------------------------------------------------------------------------------------------------------------------------------------------------------------------------

-- 3. Regular Query: Using an "If" statement in the select, display the following sentence for each animal based on their gender:

-- -\*name of animal is a sexy Female (for females)

-- -\*name of animal is a macho Male (for males)

-- -\*name of animal gender is to be decided (for null)

SELECT name,

IF(sex IS NULL,'name of animal gender is to be decided',

IF(sex = 'M','name of animal is a macho Male', 'name of animal is a sexy Female')) AS sex\_description

FROM animal;

-- -------------------------------------------------------------------------------------------------------------------------------------------------------------------------

-- 4. 3. Regular Query: Using a "Case" statement in the select, display the following sentence for each animal based on their gender:

-- -\*name of animal is a sexy Female (for females)

-- -\*name of animal is a macho Male (for males)

-- -\*name of animal gender is to be decided (for nulls)

SELECT name,

CASE sex

WHEN sex = 'M' THEN 'name of animal is a macho Male'

WHEN sex = 'F' THEN 'name of animal is a sexy Female'

ELSE 'name of animal gender is to be decided'

END AS sex\_description

FROM animal;

-- -------------------------------------------------------------------------------------------------------------------------------------------------------------------------

-- 5. STORE PROCEDURE: fetch\_animal\_info

-- IN: animal id

-- Display the animal name, gender, dob and race.

-- -if animal doesn't have a name display: "No name"

-- -if animal doesn't have a gender display: "To Be decided"

-- -if animal doesn't have a race display: "Unknown"

DELIMITER |

CREATE PROCEDURE fetch\_animal\_info(IN p\_id SMALLINT(6))

BEGIN

# instanced variables

DECLARE var\_name VARCHAR(50);

DECLARE var\_sex VARCHAR(50);

DECLARE var\_dob DATETIME;

DECLARE var\_race VARCHAR(50);

# Query info into instanced variables

SELECT a.name, a.sex, a.dob, r.name INTO var\_name, var\_sex, var\_dob, var\_race

FROM animal a

LEFT JOIN race r

ON a.race\_id = r.id

WHERE a.id = p\_id;

# name, sex and race

IF var\_name IS NULL AND var\_sex IS NULL AND var\_race IS NULL THEN

SET var\_name = 'no name';

SET var\_sex = 'to be decided';

SET var\_race = 'unknown';

# name and sex

ELSEIF var\_name IS NULL AND var\_sex IS NULL THEN

SET var\_name = 'no name';

SET var\_sex = 'to be decided';

# name and race

ELSEIF var\_name IS NULL AND var\_race IS NULL THEN

SET var\_name = 'no name';

SET var\_race = 'unknown';

# sex and race

ELSEIF var\_race IS NULL AND var\_sex IS NULL THEN

SET var\_race = 'unknown';

SET var\_sex = 'to be decided';

# name

ELSEIF var\_name IS NULL THEN

SET var\_name = 'no name';

# sex

ELSEIF var\_sex IS NULL THEN

SET var\_sex = 'to be decided';

# race

ELSEIF var\_race IS NULL THEN

SET var\_race = 'unknown';

END IF;

SELECT var\_name 'name', var\_sex 'sex', var\_dob 'dob', var\_race 'race';

END |

DELIMITER ;

DROP PROCEDURE fetch\_animal\_info;

CALL fetch\_animal\_info(9);

select \* from animal;