Relational Databases with MySQL Week 4 Research Assignment

**Points possible:** 30

|  |  |  |
| --- | --- | --- |
| **Category** | **Criteria** | **% of Grade** |
| **Accuracy** | Is the information accurate? | 25 |
| **Organization** | Is the essay clean and organized? Ideas are presented in a logical order. | 25 |
| **Citations** | Students reference and cite at least 5 sources. | 25 |
| **Completeness** | All requirements of the assignment are complete. | 25 |

**Instructions:** In however many words necessary, write a thorough essay response to each of the below prompts. Be sure to include at least 5 references for this assignment. Do not copy and paste text from the internet or any other source; use the information you find in your research, summarize, in your own words, the concepts. Plagiarism will result in a zero for the assignment as well as disciplinary actions. Push this document to your GitHub repository for this week. Add the URL for this week’s repository to this document where instructed and submit this document to your instructor when complete.

**What are stored procedures?**

**Stored procedures can accept input parameters and return multiple values of output parameters.**

**What are some logical constructs that can be used in a stored procedure (i.e. loops, conditionals, parameters, etc…)?**

**Loops-can be done by any one of the following executions; while, repeat, or loop.**

**Conditionals-can be a flow of control, statements allow you to execute the code. So statements can allow you to take different actions depending on the value of the expression being used.**

**Parameters-depending on the parameter, out parameters are used to send the output from a procedure and in parameters are used to send values to stored procedures.**

**In your own words explain how each of these constructs is used. Provide a syntactical example of each.**

**Loops;**

**While-loops that checks the expression at the beginning before the statements are executed.**

**DELIMITER; //**

**DROP PROCEDURE IF EXISTS lion\_king\_while\_loop;**

**CREATE PROCEDURE lion\_king\_while\_loop( )**

**BEGIN**

**DECLARE x INT;**

**DECLARE str VARCHAR(365);**

**SET x = 1;**

**SET str = ‘ ‘ ;**

**WHILE x <= 5 DO**

**SET str = CONCAT (str, x, ‘,’);**

**END WHILE;**

**Repeat-repeats the loop statement after execution of statements.**

**REPEAT**

**DELIMITER; //**

**CREATE PROCEDURE Repeat\_lion\_king\_loop( )**

**BEGIN**

**DECLARE A INT;**

**DECLARE BCD Varchar (26);**

**SET A = 1;**

**SET BCD = ‘ ‘;**

**RPEAT**

**SET BDC = CONCAT (BCD, A, ‘ , ‘);**

**SET A = A +1;**

**UNTIL A > 26**

**END REPEAT;**

**Loop executes the code and has flexibility of using the loop.**

**CREATE PROCEDURE lion\_king\_loop( )**

**BEGIN**

**DECLARE x INT;**

**DECLARE str VARCHAR(365);**

**SET x =1**

**SET str = ‘ ‘;**

**loop\_movie: LOOP**

**IF x > 30 THEN**

**LEAVE loop\_movie;**

**END IF;**

**SET x = x + 5;**

**IF (x mod 2) THEN**

**ITERATE loop\_movie;**

**ELSE**

**SET str = CONCAT(str, x, ‘,’);**

**END IF;**

**END LOOP;**

**Conditionals-values that can be used as conditionals are IF and CASE.**

**DELIMITER; //**

**CREATE PROCEDURE TheLionKing( )**

**IN s\_simbasAge int(10),**

**Out s\_simbasLength varchar (20))**

**BEGIN**

**DECLARE overallSimba double;**

**SELECT averageSimba INTO overallSimba**

**FROM lionKing**

**WHERE simbasAge = s\_simbasAge;**

**IF overallSimba > 1000 THEN**

**SET s\_simbasLength = ‘HUGE’;**

**ELSEIF (overallSimba <= 1000 AND overallSimba >=500) THEN**

**SET s\_simbasLength = ‘WOW’;**

**ELSEIF overllSimba < 1000 THEN**

**SET s\_simbasLength = ‘SMALL’;**

**END IF;**

**DELIMITER; //**

**CREATE PROCEDURE The\_lion\_king( )**

**in timonNumber int(20),**

**out pumbaaLevel varchar (19))**

**BEGIN**

**DECLARE value double;**

**FROM lion\_King**

**WHERE timonNumber = t\_timonNumber;**

**CASE**

**WHEN value > 100 THEN**

**SET pumbaaLevel = ‘YOUNG’;**

**END CASE;**

**Parameters-In/Out of values in stored procedures**

**DELIMITER; //**

**CREATE PROCEDURE The\_lion\_king( )**

**in timonNumber int(20),**

**out pumbaaLevel varchar (19))**

**BEGIN**

**What is your favorite thing you learned this week?**

**I liked Stored Procedures because I haven’t heard about them before and it worked my brain a little trying to understand stored procedures.**

**References:**

**<https://searchoracle.techtarget.com/definition/stored-procedure>**

**<https://www.essentialsql.com/what-is-a-stored-procedure/>**

**<https://stackoverflow.com/questions/28687226/construct-and-debug-a-pl-sql-simple-or-complex-select-view-statement-in-a-proced>**

**<https://docs.oracle.com/cd/B28359_01/appdev.111/b28843/tdddg_procedures.htm>**

**<https://www.codeproject.com/Articles/126898/Sql-Server-How-To-Write-a-Stored-Procedure-in-SQL>**

**https://docs.oracle.com/cd/B19306\_01/server.102/b14200/statements\_6009.htm**

**URL to GitHub Repository:**

**<https://github.com/ash2042987/Week10Relational-Databases-with-MySQL>**