Relational Databases with MySQL Week 6 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 is the value in separating your code into controller, service, and data access layers rather than keeping it all in the same files?**

**When you separate the controller it translates incoming requests into outgoing responses if you don’t do this it can make too many requests which can not return the data.**

**When you separate a service it provides the logic from related-parts of the application if you don’t do this it can refer to sessions which can break the application.**

**When you do the data access layers it’s only invoked by service objects, if you have objects in the data access layer they won’t know each other and break the application as well.**

**Overall, that’s why you keep each one seperate versus all in the same files.**

**Why would you want to avoid putting credentials in plaintext in your code?**

**You want to avoid putting credentials in plaintext in your code because it’s not safe due to its low sensitivity.**

**What is one method that can be used to avoid putting plaintext database usernames and passwords into your code?**

**You can create a java file/class in a package which connects to your database and use the following code:**

**Package example;**

**Import java.util.scanner;**

**Public class login {**

**Public static void main(String[]args) {**

**Scanner input = new Scanner(System.in);**

**String user, pass;**

**System.out.print(“ENTER your username:”);**

**User = input.nextLine();**

**If(user.equals(“ash”) && (pass.equals(“sanchez”))){**

**}else{**

**System.out.println(“You’re NOT ash, denied.”) ;**

**}**

**}**

**Also, when I did my research for this question I found if you make it a config.php file the source code files need permission to access the database as well.**

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

**I learned how to git push which I’ve heard about but never really got to do so that was interesting, I got to push a couple files but then it started to error on my command so I look forward it learning more about that.**

**References:**

**<https://www.javacodegeeks.com/2012/05/secure-password-storage-donts-dos-and.html>**

**<https://www.bennadel.com/blog/2379-a-better-understanding-of-mvc-model-view-controller-thanks-to-steven-neiland.htm>**

**<https://blog.codinghorror.com/understanding-model-view-controller/>**

**<https://dzone.com/articles/building-simple-data-access-layer-using-jdbc>**

**<https://techbeacon.com/app-dev-testing/top-5-software-architecture-patterns-how-make-right-choice>**

**<https://security.stackexchange.com/questions/20294/how-should-an-application-store-its-credentials>**

**URL to GitHub Repository:**

**<https://github.com/ash2042987/Week12Relational-Databases-with-MySQL->**