Active Learning Activity: Secure Coding Practices

ECE 60872/CS 59000 – Fault Tolerant Computer System Design
School of Electrical and Computer Engineering
Purdue University
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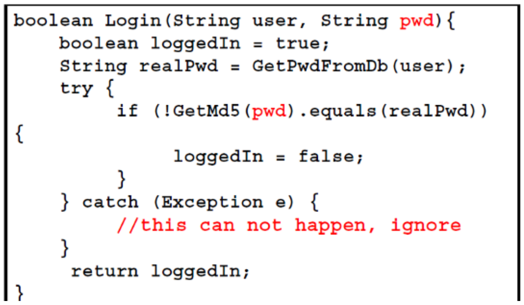
What are possible vulnerabilities in this code fragment that is supposed to check for correct login?



```
boolean Login(String user, String pwd){
    boolean loggedIn = true;
    String realPwd = GetPwdFromDb(user);
    try {
         if (!GetMd5(pwd).equals(realPwd))
{
              loggedIn = false;
         }
    } catch (Exception e) {
         //this can not happen, ignore
    }
     return loggedIn;
}
```

10/15/18

Secure Coding ALA

1. Set logged In = false at init.
Make changes in rest of code accordingly.
2. Input validation.

3. GetPwd fromDb within ~~Get~~ equals.
Reduces window of vulnerability.
within try, catch block.

4. Set realPwd to null quickly after use to reduce chance of information leakage.