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CS 305

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Algorithm Ciphers

1. **Algorithm Cipher**: Review the scenario and the Java Security Standard Algorithm Names resource, a standard list of algorithm ciphers provided by Oracle for recommending an appropriate encryption algorithm cipher. This resource is linked in the module’s Resources section. Specifically, recommend an appropriate encryption algorithm cipher to deploy, given Artemis Financial’s security vulnerabilities. Consider the following points in your decision-making process:
   1. What security protection best practices do you need to consider to defend against various types of security attacks?
   2. What are the risks of your recommendation?
   3. What government regulations do you need to consider? How will these regulations be met?
   4. How will this algorithm cipher be used?
   5. What is the best cipher, and why?
   6. What are the reasons why you might not choose the most secure cipher?
2. **Justification**: You have been asked to give a brief overview of the encryption algorithm cipher to justify your recommendation to Artemis Financial. Consider the following points:
   1. Explain the purpose of the cipher's hash functions and bit levels?
   2. Explain the use of random numbers, symmetric versus non-symmetric keys, and so on.
   3. Describe the history and current state of encryption algorithms.