

Authentication

Kickoff

T7 - MSc Pool

T-POO-700

Security

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- at the system level by updating basic software and software managing user access
- at the application level by means of **authentication measures**, authorization, monitoring of access, traceability of the actions carried out, etc.



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- give the proper access to a user, according to his/her rights level



Basic and Digest

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Safer than the “Basic” method, but still susceptible to attacks



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- Digital Signature ("*Signature*") : allows verification of the authenticity of the token



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CSRF (Cross-Site Request Forgery) vulnerability:

Involves sending a “dangerous” link (an account deletion link for example) to a connected user. When the user clicks, the action will be executed even before the user knows what it is. To protect themselves, we usually use tokens called “XSRF tokens”.



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- “I import” these in my browser : I am logged in as the administrator
- I can then delete all items from the site!



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- The user clicks on the link:



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 - if he/she is connected to the site: the transfer is instantaneous
 - if not: the user gets connected thinking it is safe, and the transfer happens



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- attack that sends SQL code to a server so that it executes it and returns the result to the user
- often used to recover normally inaccessible data or to modify the database
- based on the fact that special characters (such as ' or " for example) are not escaped, which can be easily avoided, so this flaw is not widespread today



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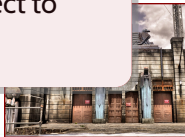
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We remind you that such operations are prohibited by law and subject to a fine.



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Nevertheless, sites still exists where such flaws are exploitable. For instance, when the tools of a framework are misused, it is the developer who “creates” flaws without their knowledge.



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- Watch out for the latest flaws discovered
- In the case of using a framework or external libraries, keep them up-to-date



Any questions

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