

Privacy-Preservation Technologies in Information Systems, WS 21/22

Exercise Sheet 05. Subject: "LPL, Access control, Policy enforcement & XACML"

Task 1 - LPL

- a) Explain the abbreviation LPL. Explain the layered structure.
- b) Explain the category provenance. Does LPL support it?
- c) Which de-identification mechanisms are supported by LPL? Describe the differences of the mechanisms.

Task 2 - Access control

- a) What is the difference between authorization and authentication?
- b) Explain the differences between ACL, RBAC, and ABAC.

Task 3 - XACML

Define a policy in XACML with the following restrictions.

- The policy should only apply to requests for the server called "SampleServer".
- The policy includes the following rule.
 - The action "login" is required.
 - This condition applies only if the Subject is trying to log in between 9 AM and 5 PM.

What should happen regarding to the access control mechanism if the rule is not fulfilled? What happens when multiple rules are defined?