Feedback on Topic 11 Ex

Exercise Question – E11.1

Contrast the following AC mechanisms, Directory, Access Control List, Capability and Procedure-oriented AC, **in terms of how easy it is** (for each case, you should consider what the system needs to do to accomplish the operation):

i) to determine authorised access during execution.

ii) to add access for a new subject.

iii) to delete access by a subject.

iv) to create a new object to which all subjects by default have access.

v) to revoke partial rights of a subject in the system.

Exercise Question – E11.1 - A

This question is for class discussion. Answers can be worked out from notes in the slides.

Exercise Question – E11.2

Rewrite an AC policy using MAC to mitigate the risk of trojan horse shown in the MAC-Motivation slide.

Exercise Question – E10.2 - A

- It is assumed that the two objects, O1 and O2, have the following classification/sensitivity/security levels:

O1 = Security-Level 2 (confidential)

O2 = Security-Level 1 (unclassified)

- To ensure confidentiality, the following clearance levels can be assigned to the subjects, Alice and Bob:

Alice = Clearance-Level 2 (so Alice can read O1 and O2, can write to O1, but cannot write to O2)

Bob = Clearance-Level 1 (so Bob can read O2, and can write to O1 and O2)

OR

Alice = Clearance-Level 1

Bob = Clearance-Level 1