Quiz 2

Due Jan 13 at 11:59pm **Points** 15 **Questions** 11
Available Jan 12 at 12pm - Jan 13 at 11:59pm **Time Limit** 30 Minutes

Instructions

This quiz covers the objectives MO 9, MO 12, MO 13, MO 14 of Module 1:

- MO 9. Define Access Control Matrix and Protection State Transition. (CO 1)
- MO 12. Define the Safety Question. (CO 1)
- MO 13. Recall the answer to the Safety Question when only mono-operational commands are supported. (CO 1)
- MO 14. Recall the answer to the Safety Question in the general case. (CO 1)

This quiz is no longer available as the course has been concluded.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	12 minutes	15 out of 15

ⓘ Correct answers are hidden.

Score for this quiz: **15** out of 15
Submitted Jan 12 at 3:26pm
This attempt took 12 minutes.

Question 1 — 1 / 1 pts

A table includes multiple objects and subjects and it identifies the specific access each subject has to different objects. What is this table?

- Access control list

- [x] Access control matrix
- [ ] Federation
- [ ] Creeping privileges
- [ ] None of the above

Question 2

2 / 2 pts

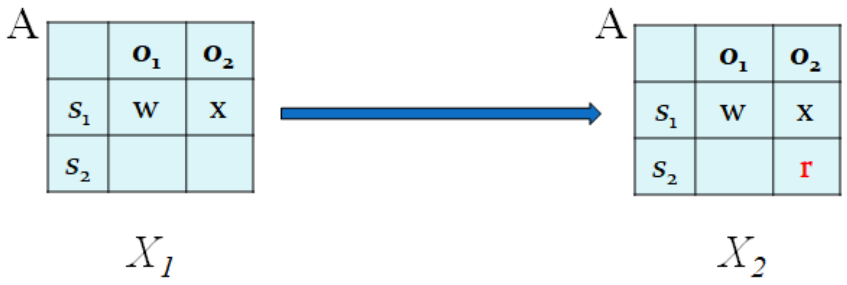
Which of the following is true about the Safety Question?

- [ ] It is always decidable
- [x] It is about determining whether a protection system with an initial state is safe with respect to a generic right
- [ ] It is undecidable when only mono-operational commands are supported
- [ ] Being safe means an access right is leaked

Question 3

2 / 2 pts

What can be a command that causes the following protection state transition?



X_1 X_2

- create object o2
- enter w into A[s1, o1]
- delete x from A[s1, o2]
- enter r into A[s2, o2]

Question 4

1 / 1 pts

In an access control matrix, rows represent objects.

- True
- False

Question 5

1 / 1 pts

Complete the following primitive operation, which means adding right r for subject p over object f.

enter r into _____

A[p,f]

Question 6

1 / 1 pts

In an access control matrix, columns represent objects.

- (●) True
- ( ) False

Question 7

1 / 1 pts

Complete the following primitive operation, which means deleting the column for object h from the ACM.

_____ object h

destroy

Question 8

1 / 1 pts

The Safety Question is decidable on modern systems such as Windows, Mac OS, and Linux.

- ( ) True
- (●) False

Question 9

2 / 2 pts

What the following primitive operation does to the ACM:

enter r into A[S_1, O_2]

- Creates subject S_1; creates object O_2
- Adds r right for subject S_1 on object O_1
- (selected) Adds r right for subject S_1 on object O_2
- Adds objects O_2 to all subjects in the matrix

Question 10

2 / 2 pts

For the command below, which of the following statements is true:

command *grant.excute.file.1*(*p*, *f*, *q*)

if *own* **in** *A*[*p*, *f*]

then

enter *x* **into** *A*[*q*, *f*];

end

- (selected) Let p give q x right over f, if p owns f
- Let q give p x right over f, if q owns f
- Let p give q x right over f, if p owns f and p has c rights over q
- Let q give p x right over f, if q owns f and q has c rights over p

Question 11

1 / 1 pts

An algorithm can determine if a protection system *S* with initial state S_0 is safe with respect to a generic right *r* if the system DOES NOT support mono-operational commands:

- True
- False

Quiz Score: **15** out of 15