CSE 484 / CSE M 584
Computer Security

TA: Adrian Sham

adrsham@cs

Original slides provided by Franzi and using elements
from previous quarters

Security Reviews

- Assets (what should be protected)

- Adversaries (possible attackers)

- Threats (actions by adversaries to exploit system)

- Vulnerabilities (weaknesses of system)

- Risk (how important are assets, how likely is exploit)

- Defenses

HTTP://XKCD.COM/538/

Practice Security Review

Much like cars, various airplane systems are controlled by computers.

This is especially true for airplanes using 'fly-by-wire'

Assets, Adversaries, Threats, Vulnerabilities, Risks, Defenses?

Security Review

- Assets (what should be protected)
  - Lives of passengers
  - Airplane
- Adversaries (possible attackers)
  - Terrorists
  - Ground crew
  - Pilot
- Threats (actions by adversaries to exploit system)
  - Unauthorized person can take control of plane
  - Interfere with electronics of plane

Security Review

- Vulnerabilities (weaknesses of system)
  - Cockpit door
  - On board WiFi
  - USB connections
- Risk (how important are assets, how likely is exploit)
  - High risk asset
- Defenses
  - Airport security
  - Air marshal
  - Isolated flight control electronics
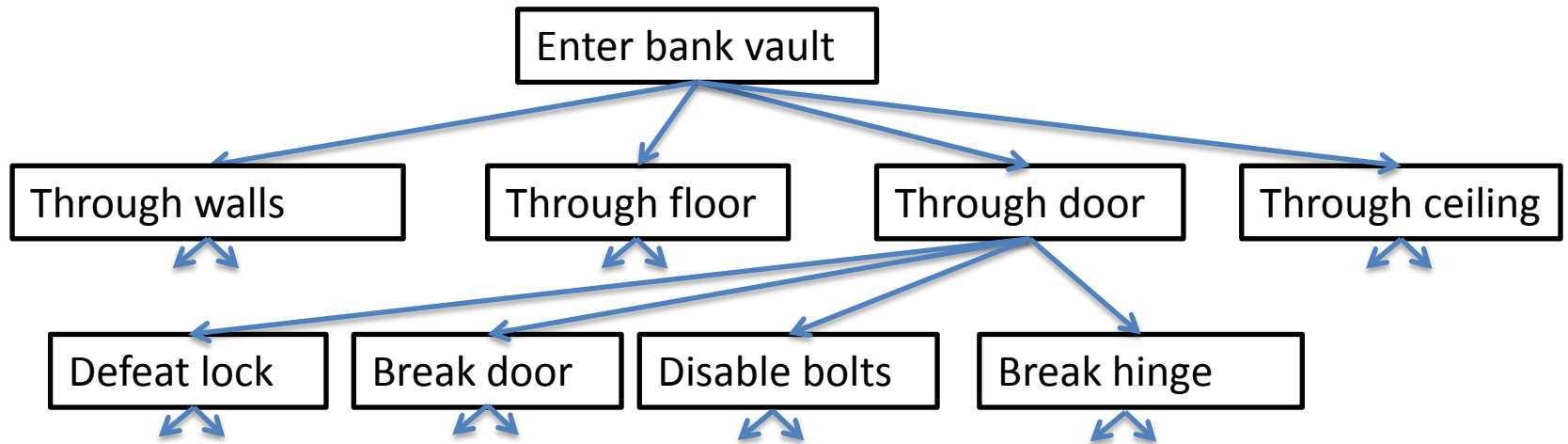
More Practice Security Reviews

- Some ideas for topics:
  - Pacemakers
  - Facebook
  - CSE Building
  - Smartphones
  - Airport security
  - … ?

Attack Trees

- A way to diagram how to attack a system
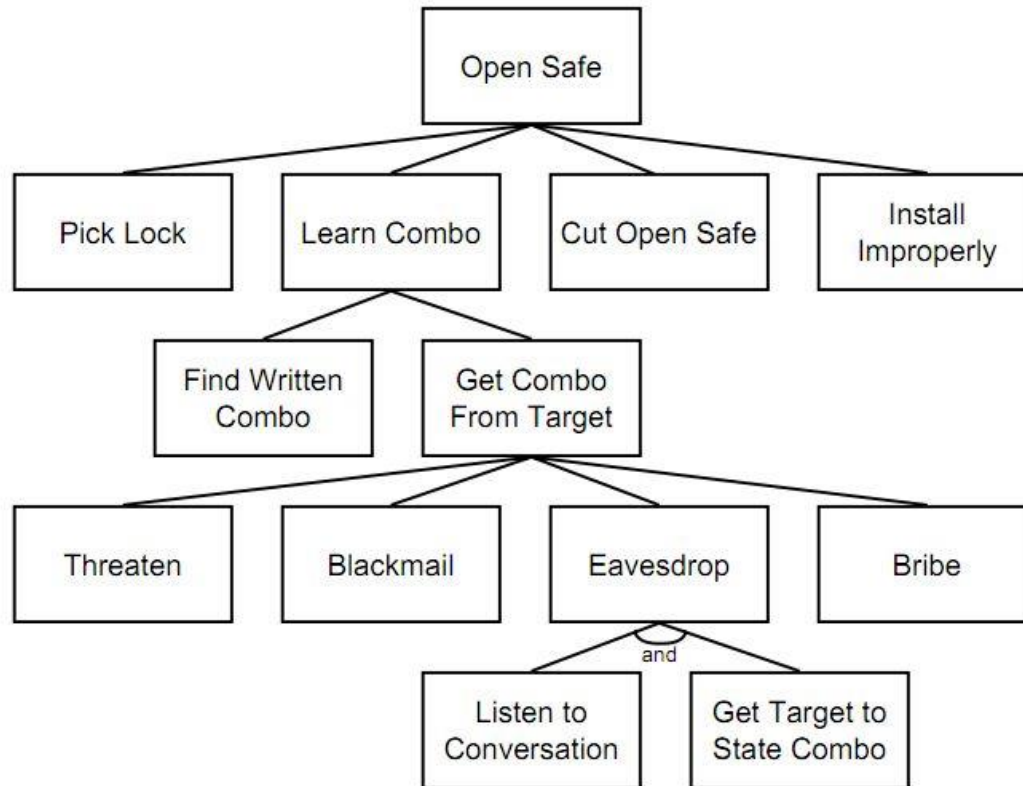
Attack Trees

Looking Forward

- Ethics form due **April 8**
- Lab 1 will be released soon, next section should be about buffer overflow attacks

Feel free to contact us!

cse484-tas@cs.washington.edu