

# Biba Example

# The Setup

- Integrity: High > Middle > Low
- Integrity Categories: A, B, C, D

- document: (Middle, { A, C })

- Peter: (Middle, { A, C })

$I(\text{Peter}) \text{ dom } I(\text{doc}), I(\text{doc}) \text{ dom } I(\text{Peter})$

- Paul: (Low, { A })

$I(\text{doc}) \text{ dom } I(\text{Paul}), \neg(I(\text{Paul}) \text{ dom } I(\text{doc}))$

- Mary: (High, { A, B, C })

$I(\text{Mary}) \text{ dom } I(\text{doc}), \neg(I(\text{doc}) \text{ dom } I(\text{Mary}))$

- Michelle: (Middle, { A, B, D })

$\neg(I(\text{Michelle}) \text{ dom } I(\text{doc})), \neg(I(\text{doc}) \text{ dom } I(\text{Michelle}))$

# What Happens

- Peter: (Middle, { A, C })  $I(\text{Peter}) \text{ dom } I(\text{doc}), I(\text{doc}) \text{ dom } I(\text{Peter})$ 
  - Peter can read, write the document
- Paul: (Low, { A })  $I(\text{doc}) \text{ dom } I(\text{Paul}), \neg(I(\text{Paul}) \text{ dom } I(\text{doc}))$ 
  - Paul can read but not write the document
- Mary: (High, { A, B, C })  $I(\text{Mary}) \text{ dom } I(\text{doc}), \neg(I(\text{doc}) \text{ dom } I(\text{Mary}))$ 
  - Mary can write but not read the document
- Michelle: (Middle, { A, B, D })  $\neg(I(\text{Michelle}) \text{ dom } I(\text{doc})), \neg(I(\text{doc}) \text{ dom } I(\text{Michelle}))$ 
  - Michelle can neither read nor write the document

# In Pictures

