Interleaved Schedule

Expand transactions

- This will show their operations
- But remember, database doesn't see anything except reads and writes.
- DB knows nothing of internal program logic.
- Will see that arbitrary interleaving allows obviously wrong results
A: Process check for $50

- A1: Read Bal
- A2: Bal -= 50
- A3: if (Bal < 0) handle overdraft
- A4: Write Bal

B: Make 1% interest payment

- B1: Read Bal
- B2: Bal *= 1.01
- B3: Write Bal
C: fee $0..$500: $5, $500.01 up: $2

- C1: Read Bal
- C2: if( Bal > 500) Bal -= 2
- C3: else Bal -= 5
- C4: Write Bal

Interleaved Operations
Arbitrary Interleaving

• We just saw interleaving with no controls
• Result -- 445 -- not the same as any of the 5 results of serial schedules.
• Operations just shown were invalid.
• Serial values: 449.50, 449.45, 450, 453, 449.95