



Core Java

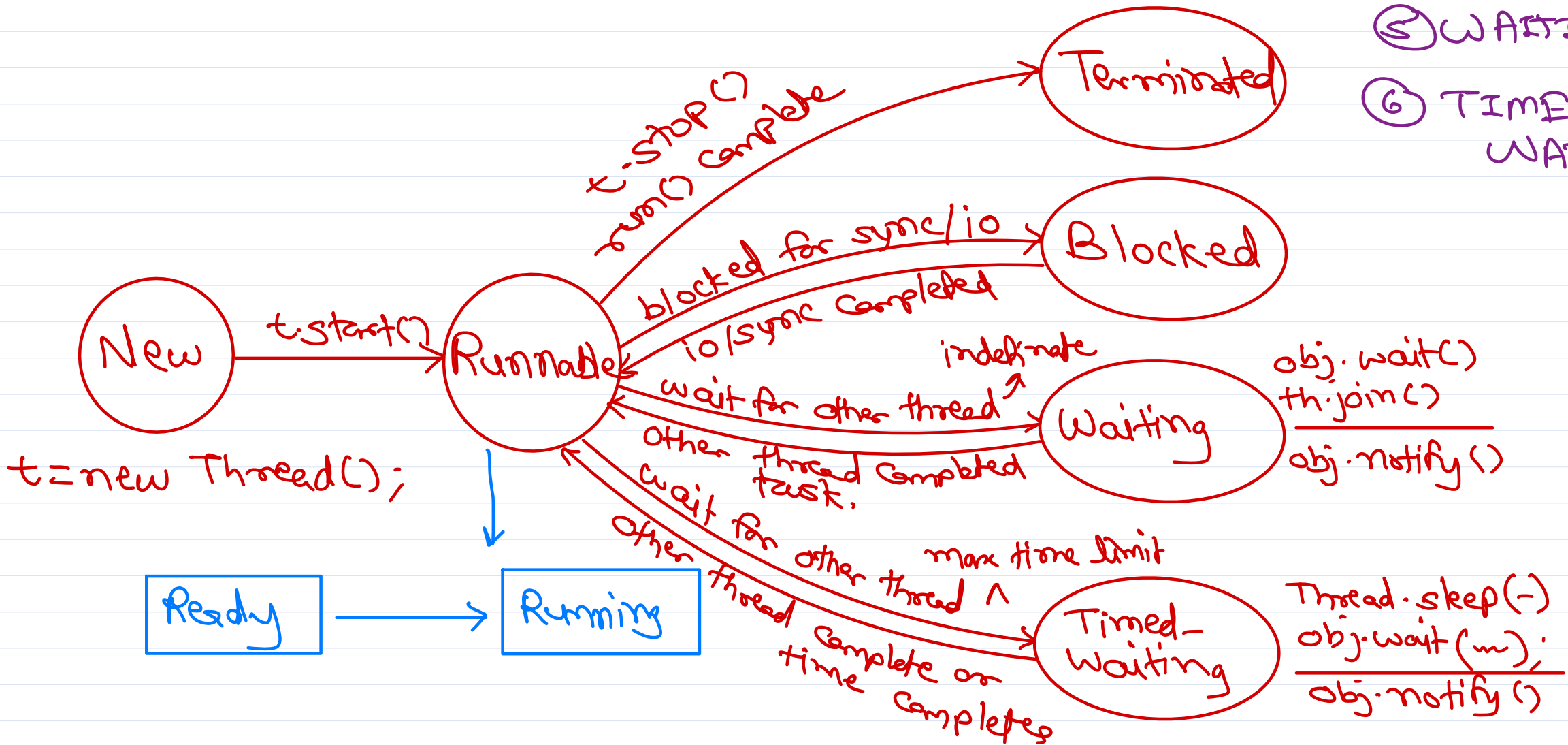
Trainer: Nilesh Ghule

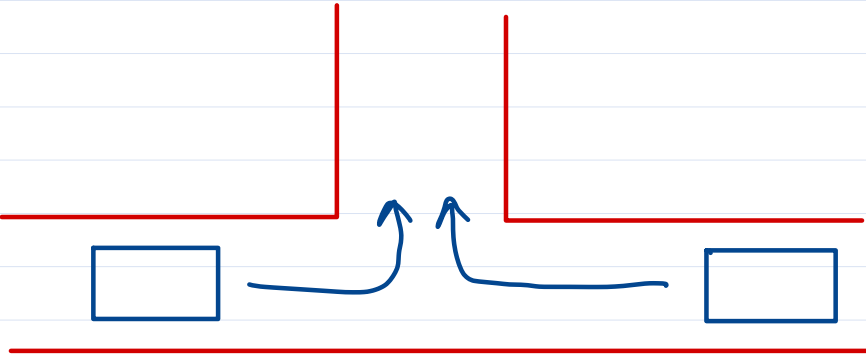


Thread.State enum: ① NEW ② RUNNABLE ③ TERMINATED ④ BLOCKED

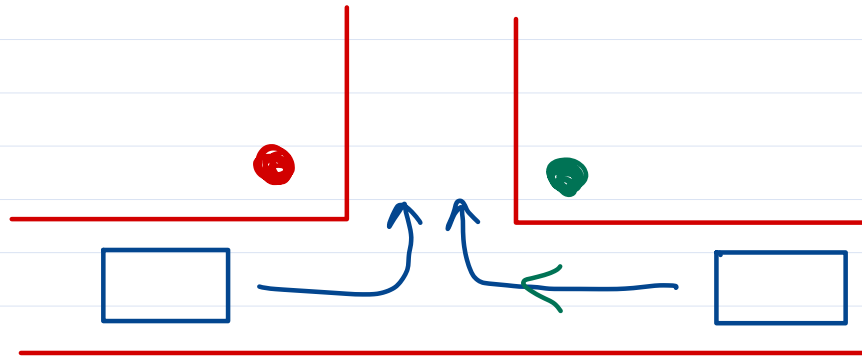
⑤ WAITING

⑥ TIMED_WAITING.





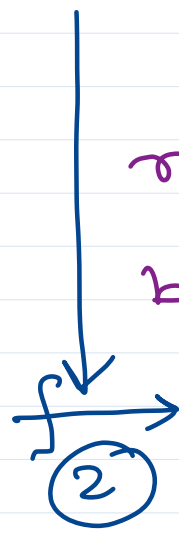
Race Condition



Synchronization

deposit

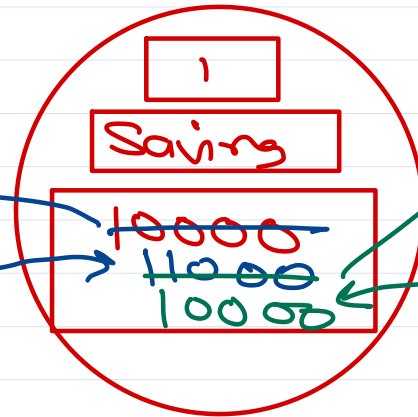
①



$$nb = b + 1000;$$

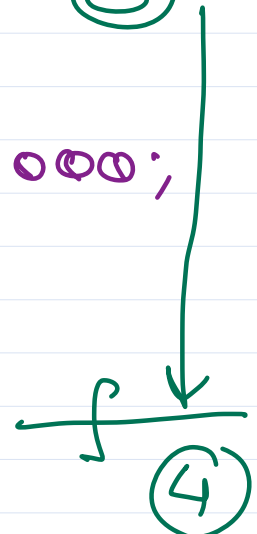
$$b = nb;$$

$$\begin{array}{r} 10000 \\ + 1000 \\ \hline 11000 \end{array} nb$$



withdraw

③

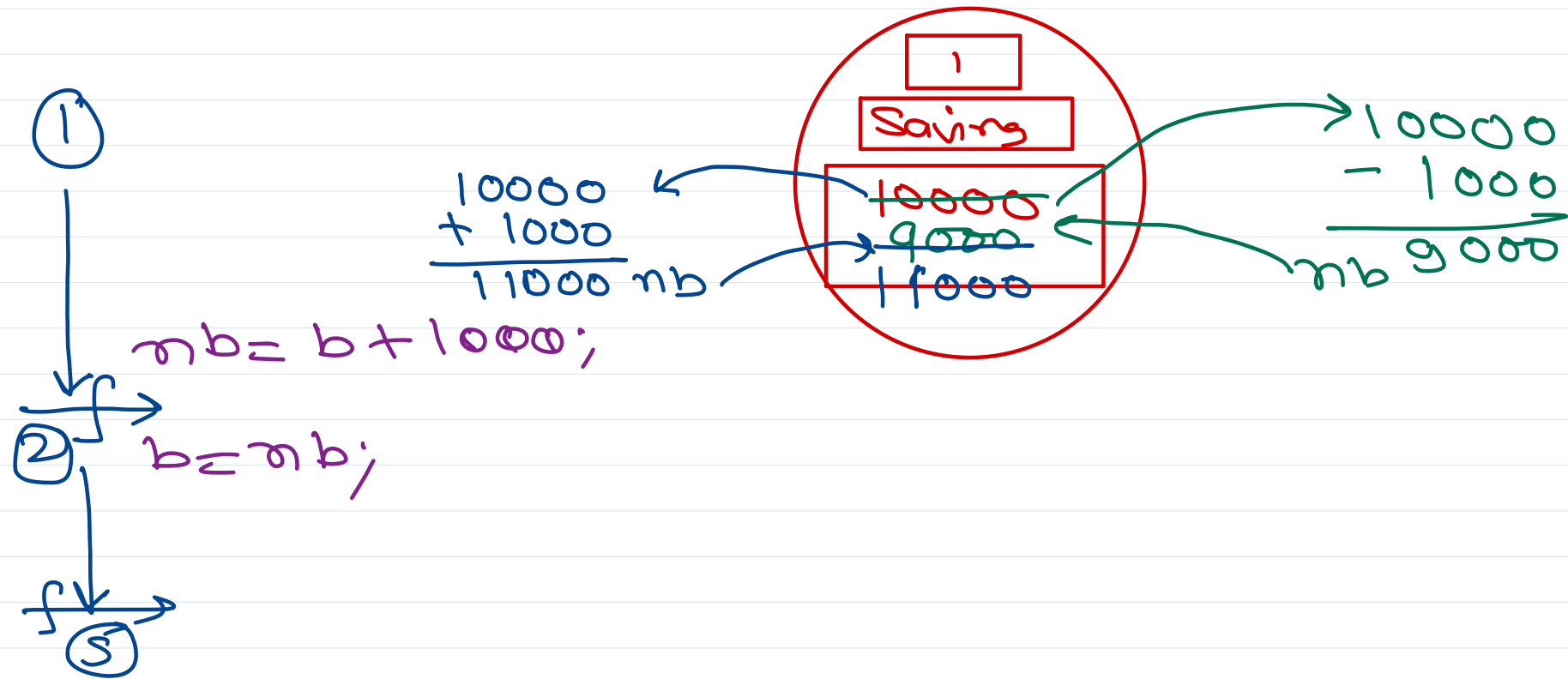


$$nb = b - 1000;$$

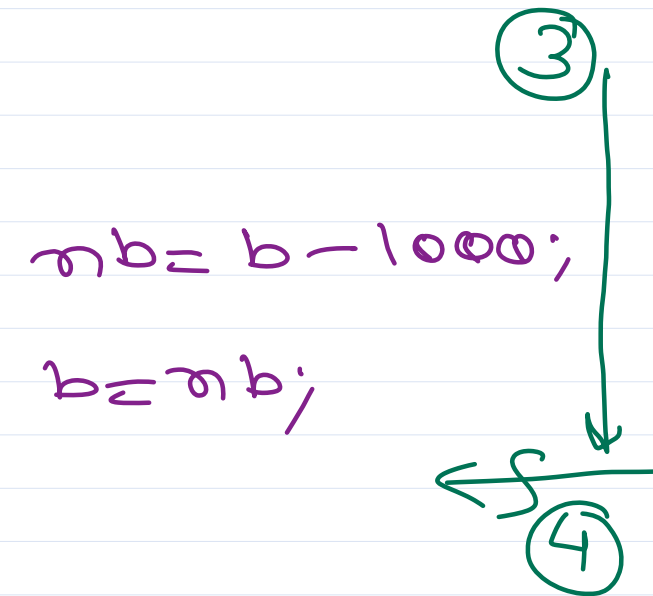
$$b = nb;$$

$$\begin{array}{r} 11000 \\ - 1000 \\ \hline nb \end{array} 10000$$

deposit



withdraw

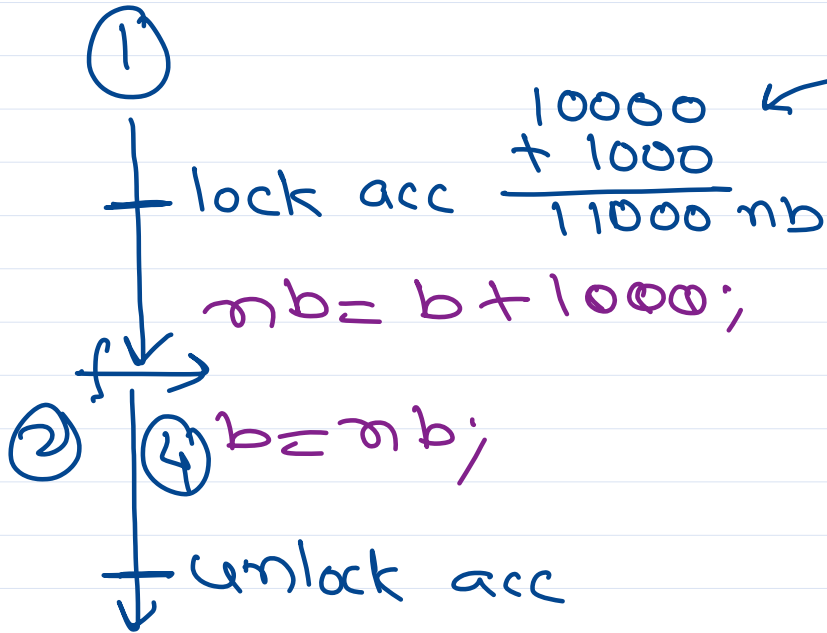
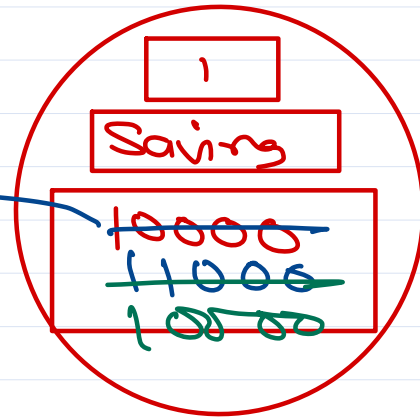
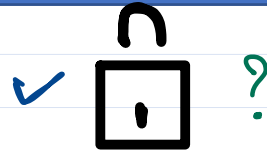


\downarrow
 \dots
 $\begin{array}{c} \text{E} \\ \text{D} \\ \text{B} \\ \text{Z} \\ \text{C} \\ \text{U} \end{array}$
 \downarrow

\downarrow
 \dots
 $\begin{array}{c} \text{E} \\ \text{D} \\ \text{B} \\ \text{Z} \\ \text{C} \\ \text{U} \end{array}$
 \downarrow



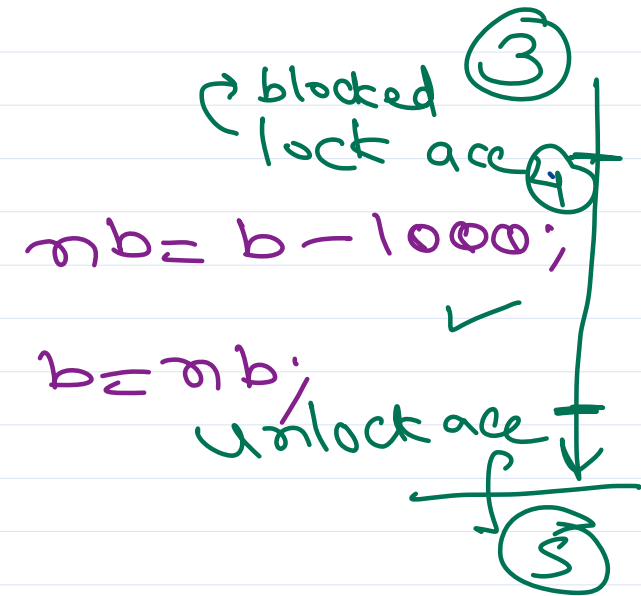
deposit



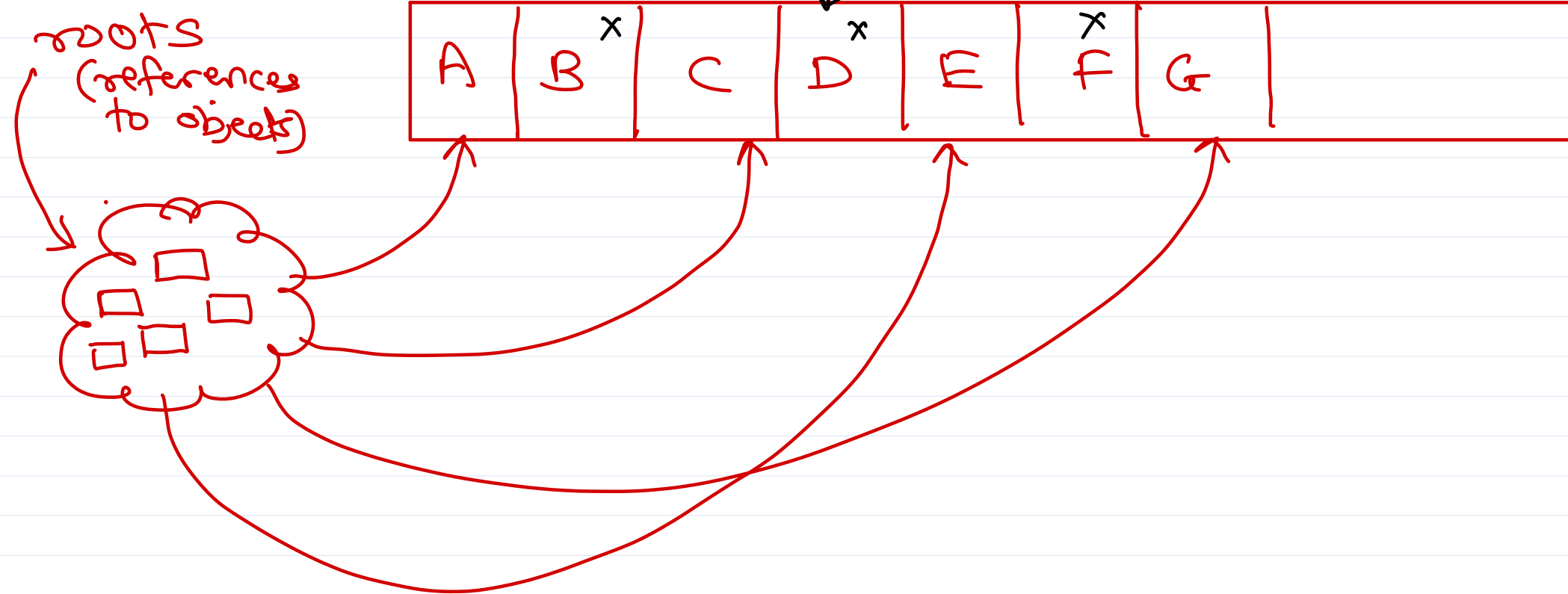
Synchronized(acc)
{ // lock
=
3 // unlock

withdraw

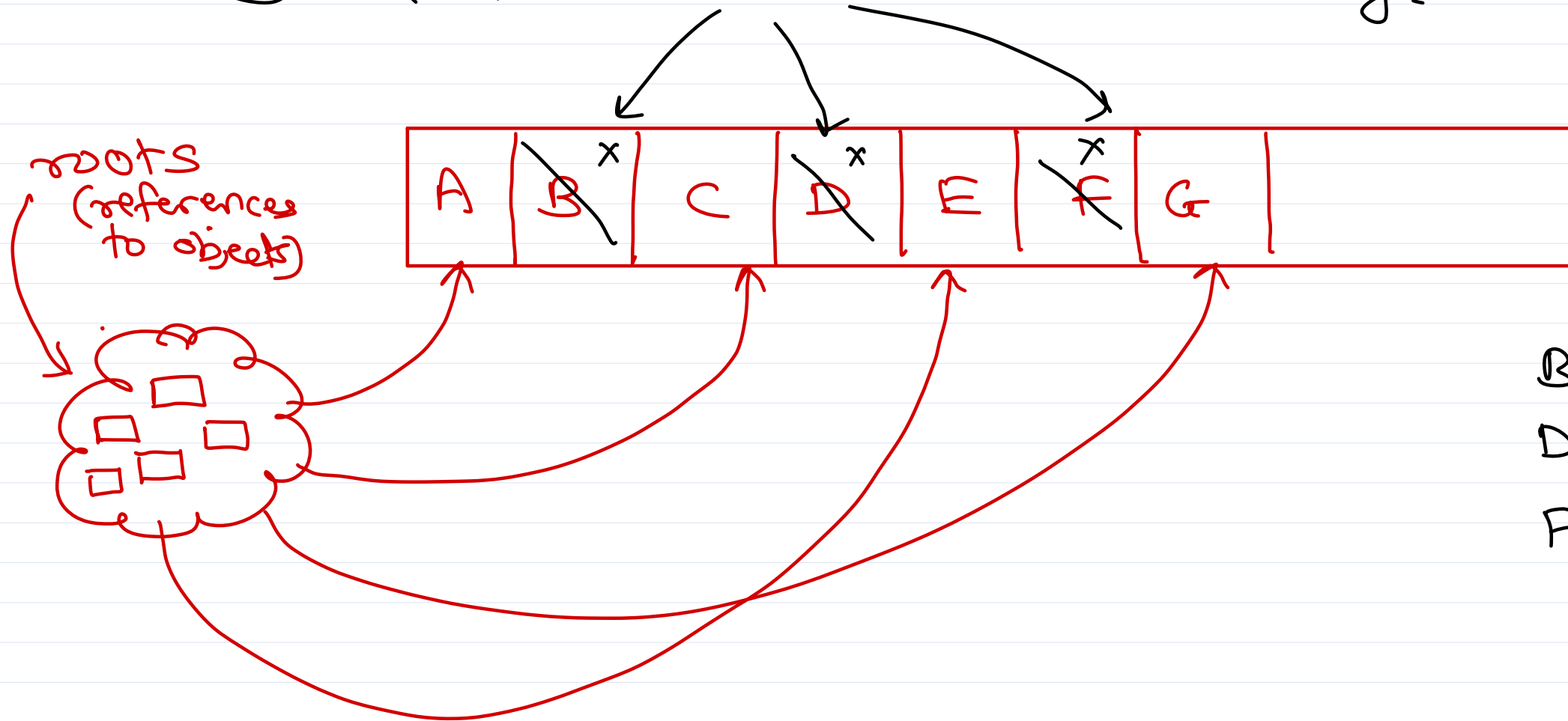
$$\begin{array}{r} 11000 \\ - 1000 \\ \hline nb 10000 \end{array}$$



① mark un reference objects



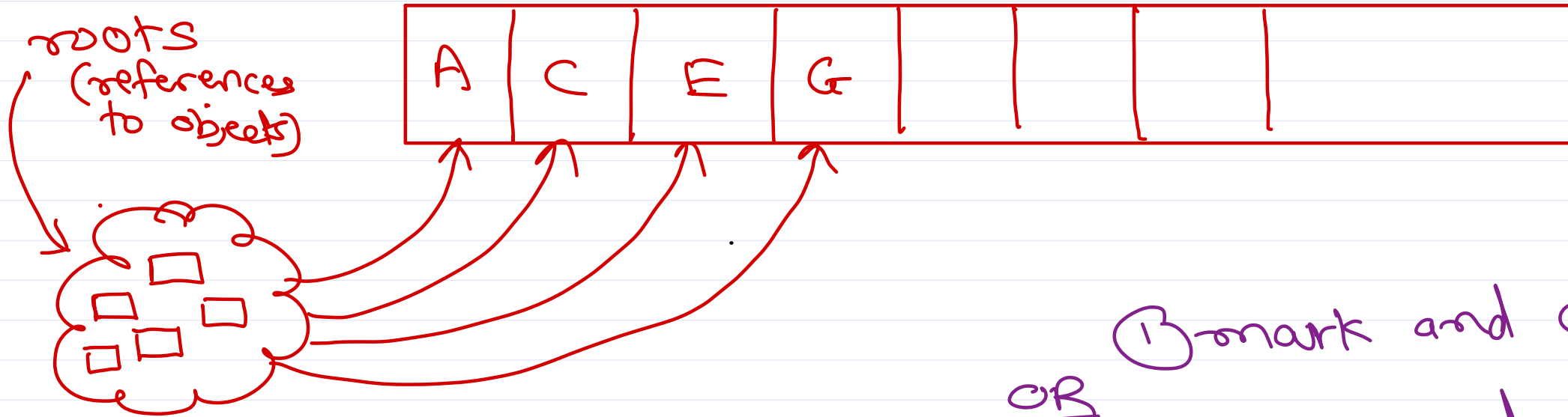
② call finalize() and release memory.



B.finalize()
D.finalize()
F.finalize()



② Compaction



OR
① mark and compact
② mark and sweep





Thank you!

Nilesh Ghule <nilesh@sunbeaminfo.com>

