

APPL. → P2P

TRANS.

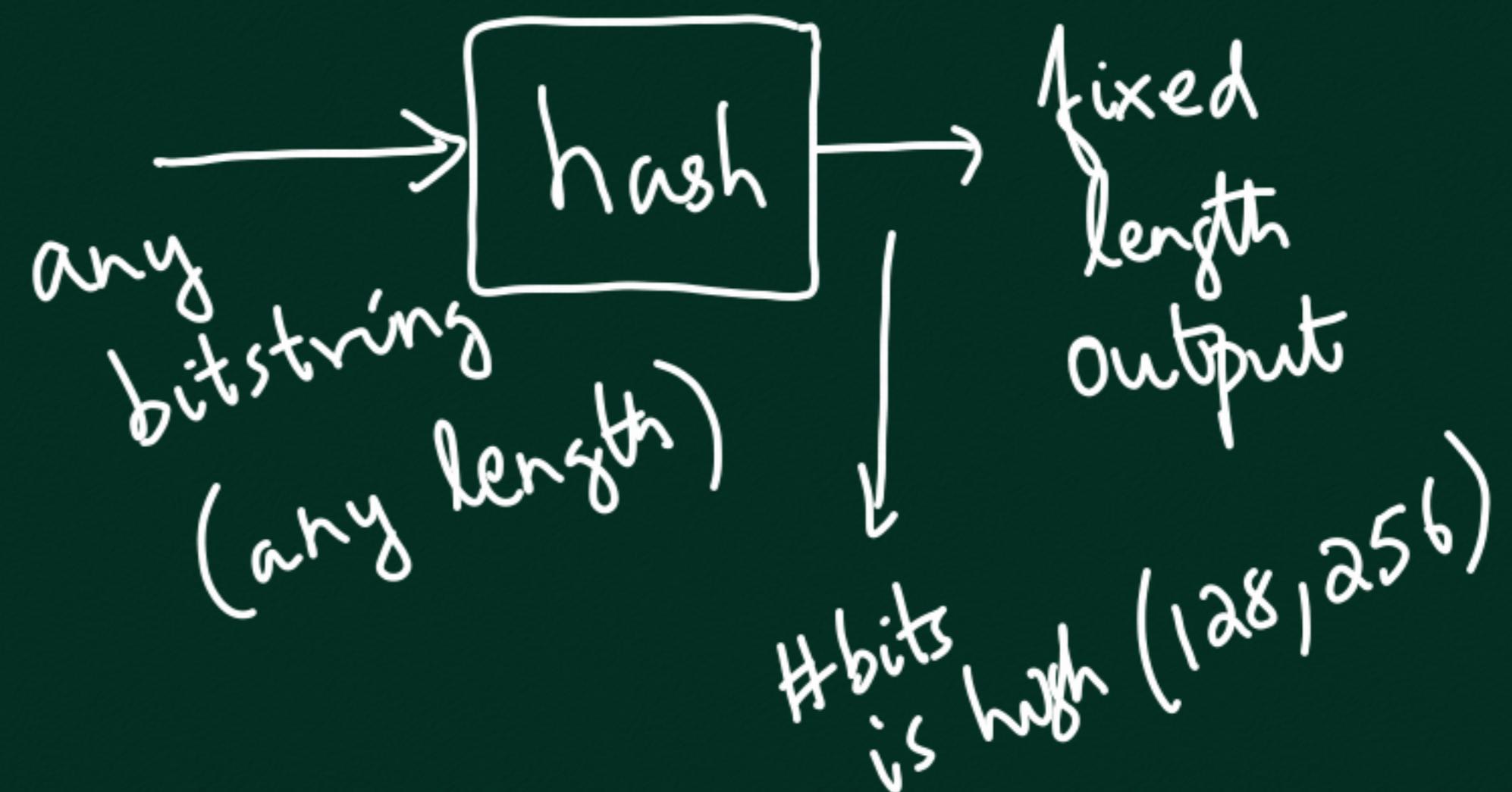
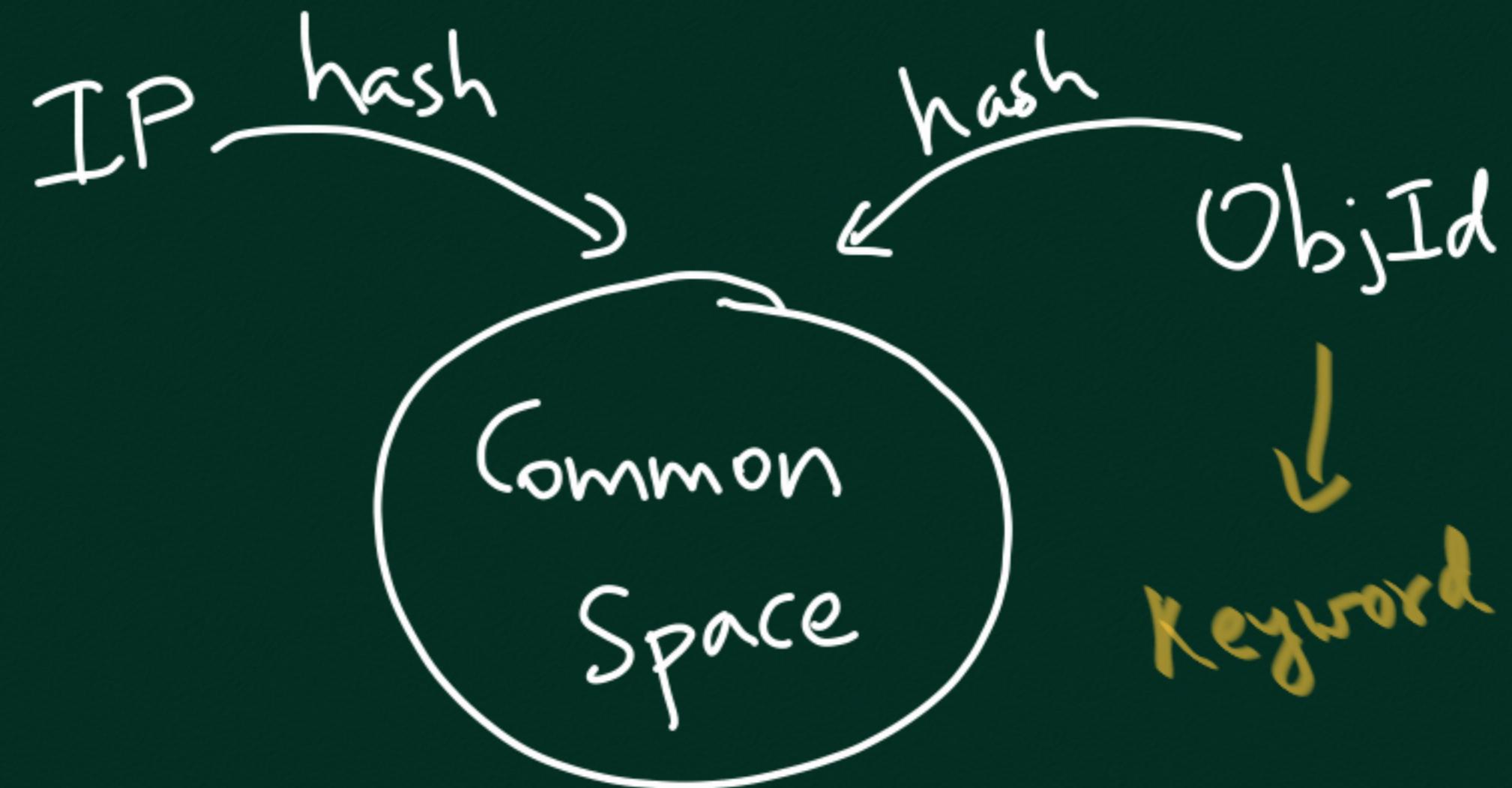
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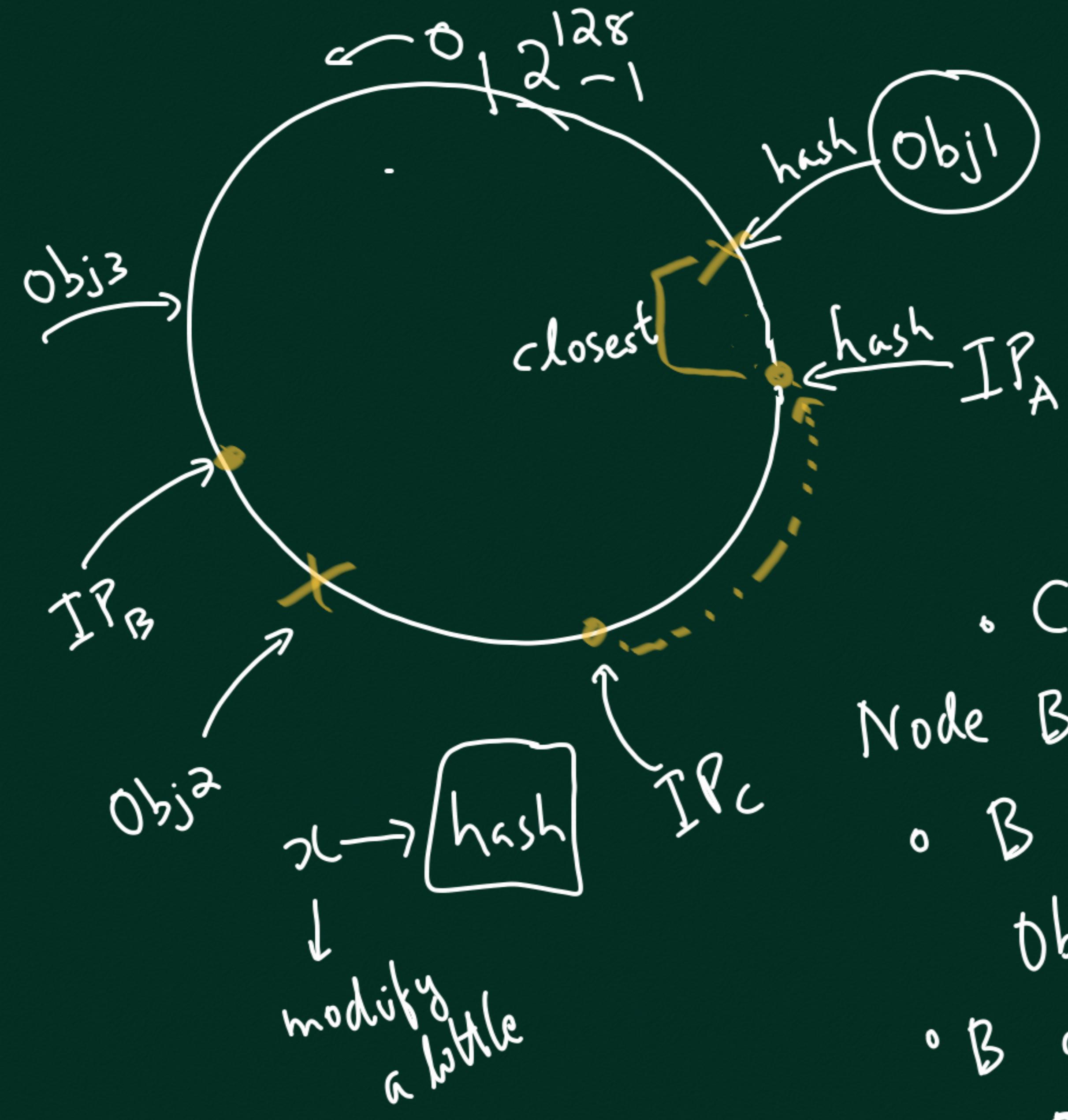
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GNUTELLA
↳ Limited.
↳ Broadcast

3rd Gen.
 $O(N)$ nodes
may get query
 $O(\log N)$





Node C has Obj1

- C finds node closest to Obj1 (in 128-bit hashed space)
- Node A

• C tells A that it has Obj1

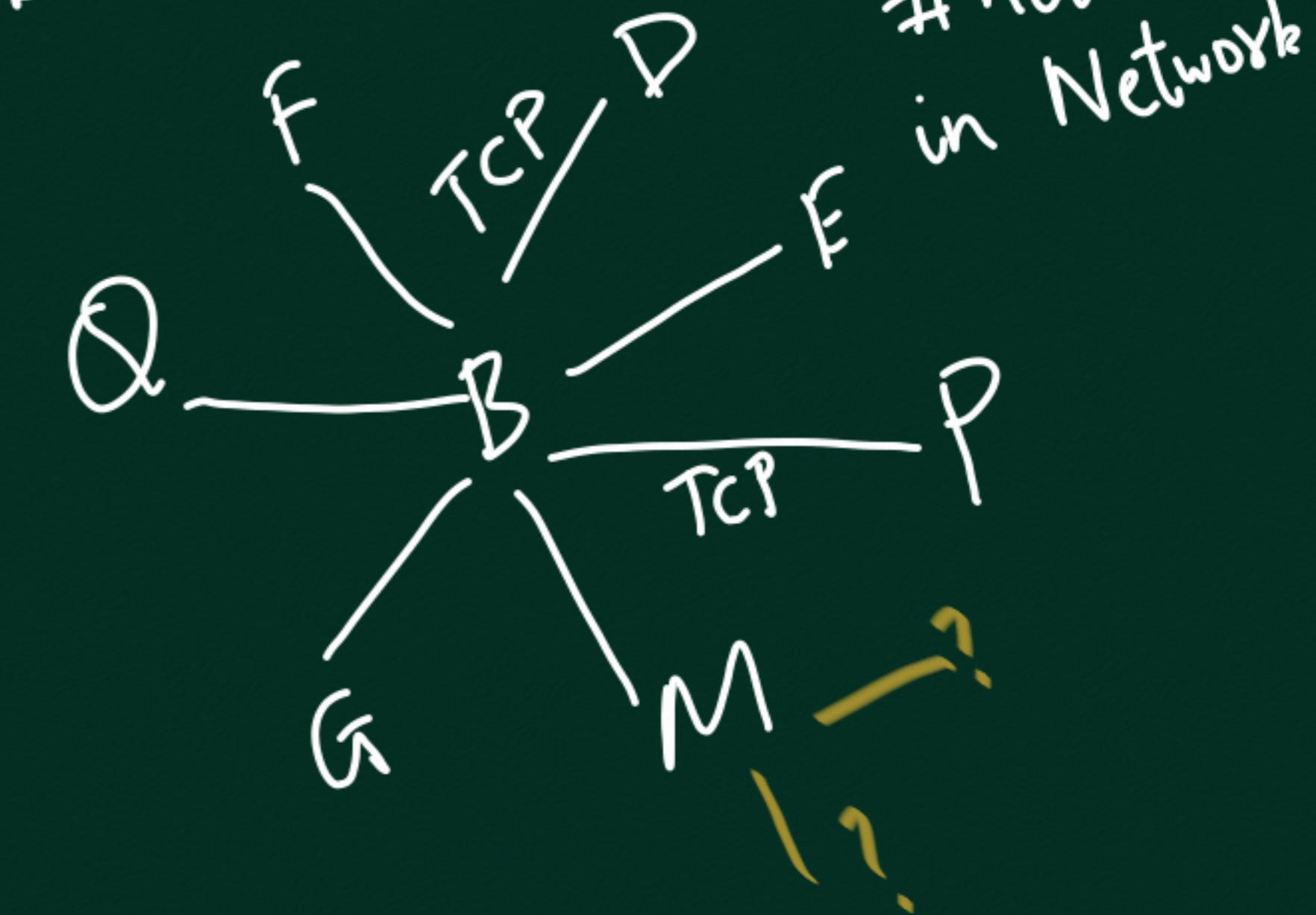
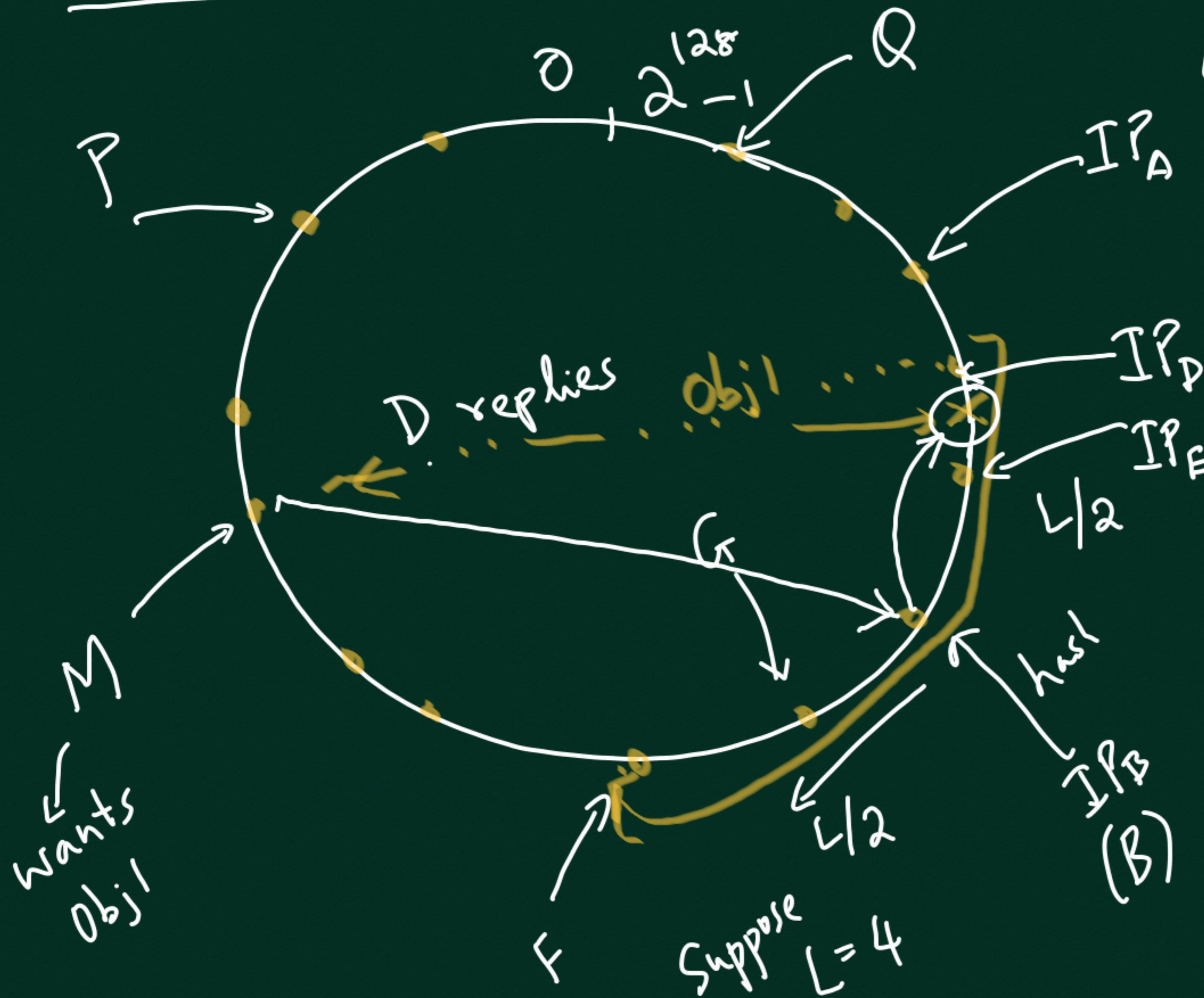
Node B is looking for Obj1

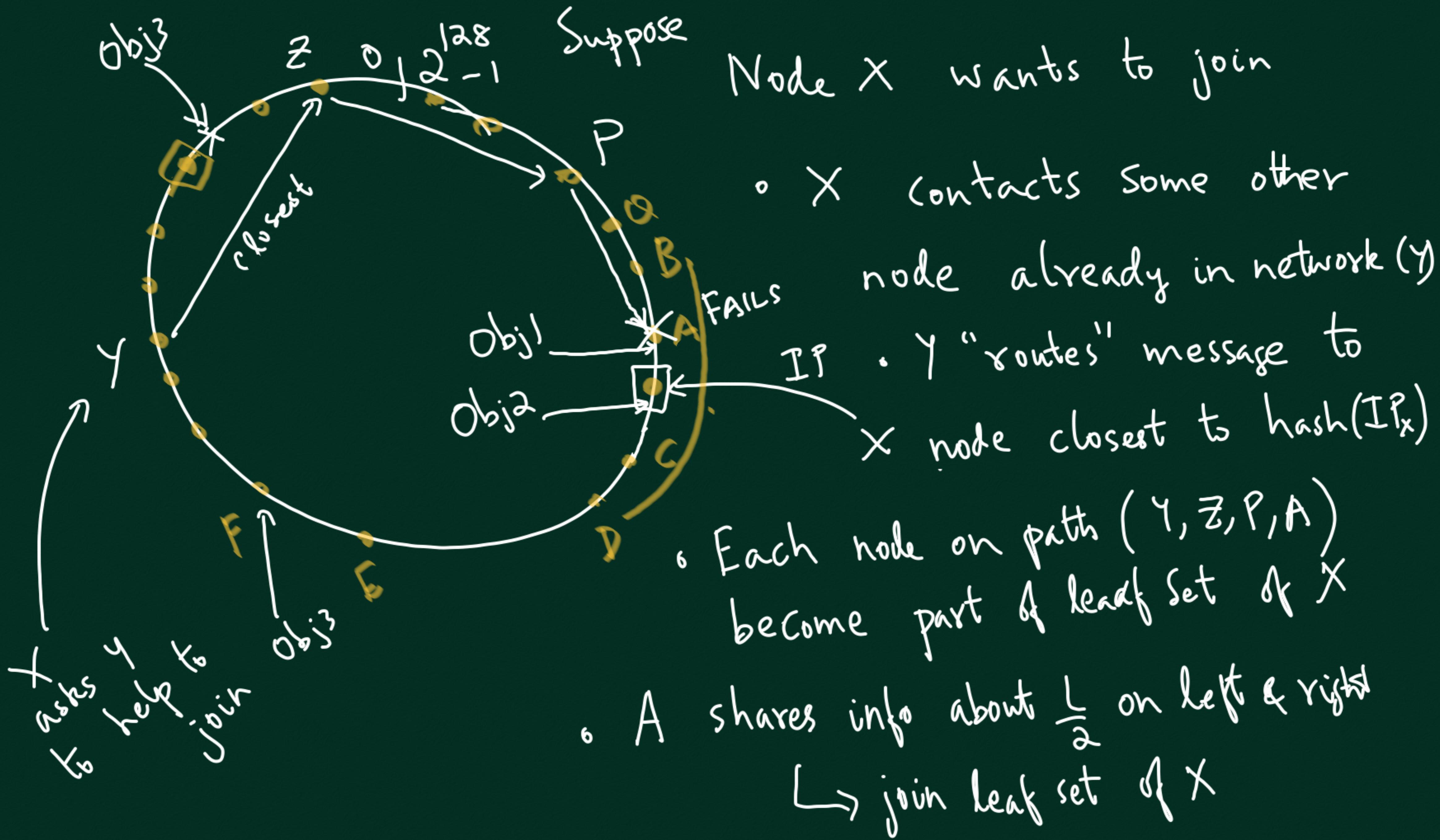
- B finds A, which is closest to Obj1 in common space
- B queries A about Obj1
- B tells A that C has Obj1

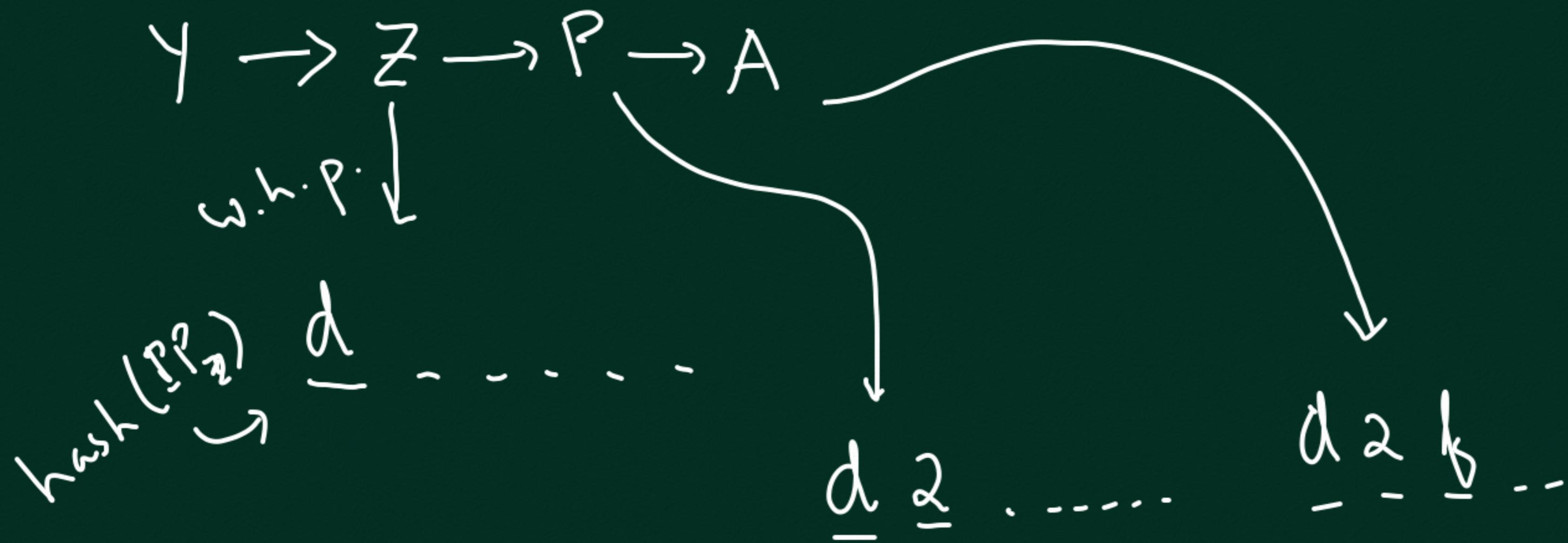
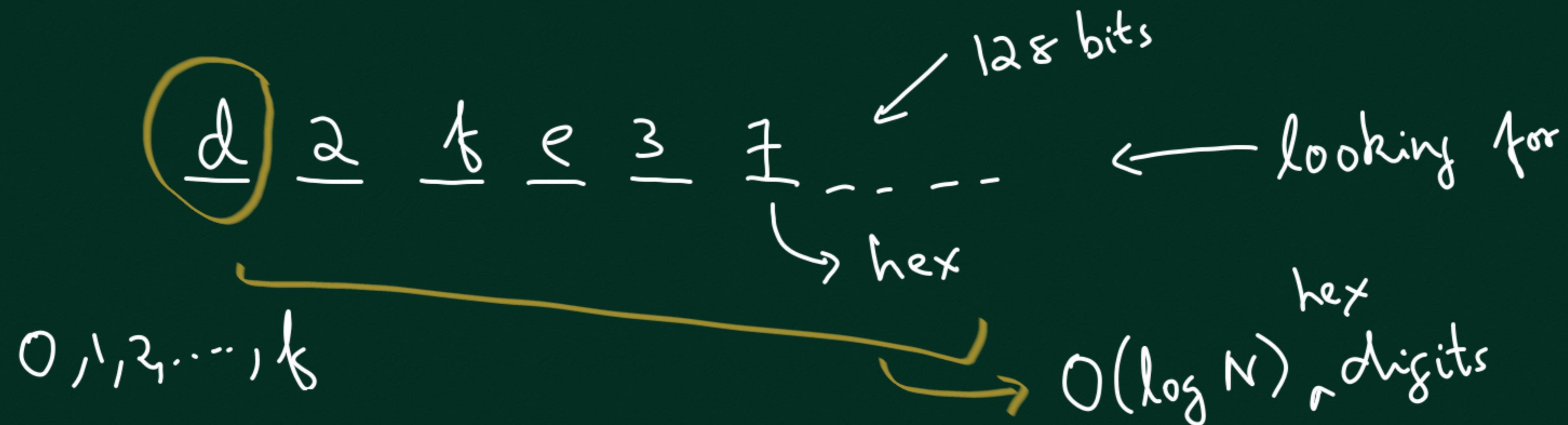
• B downloads Obj1 from C

PASTRY

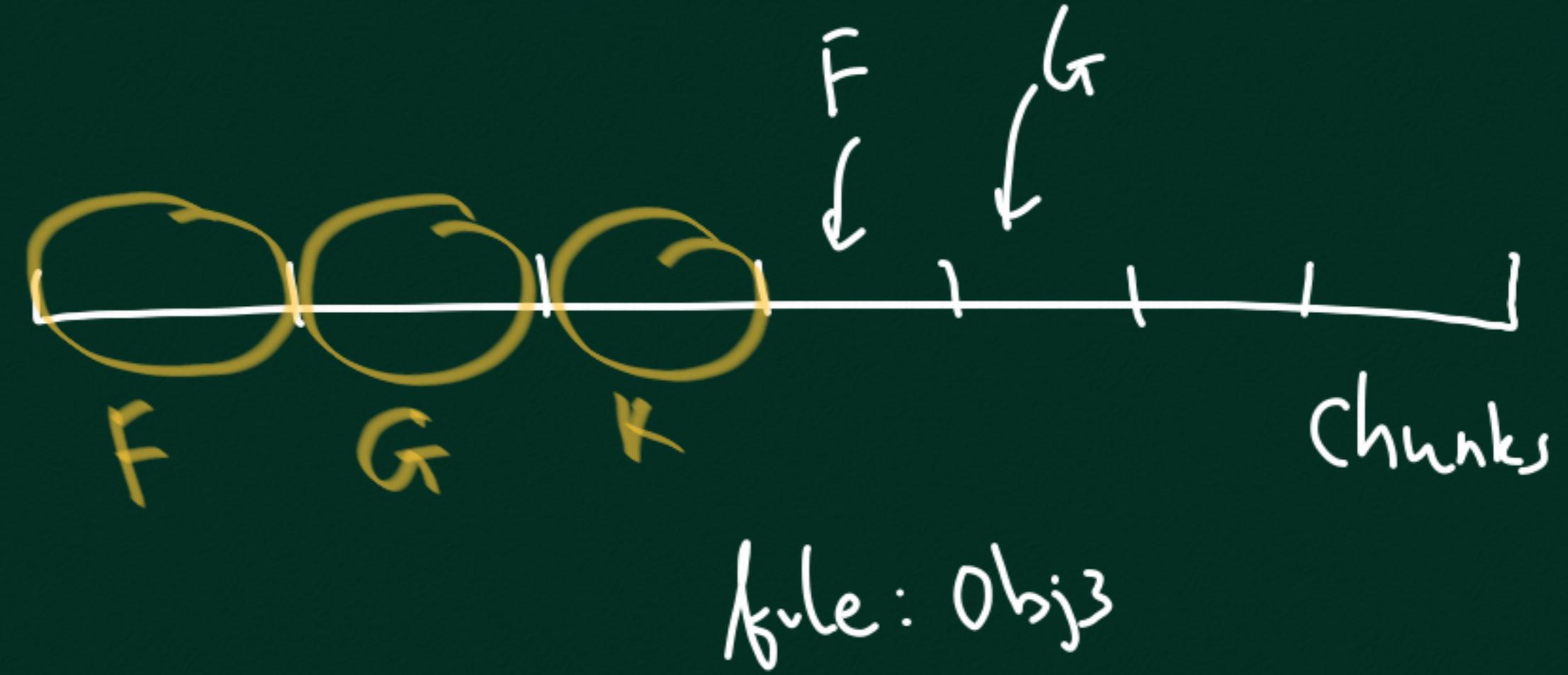
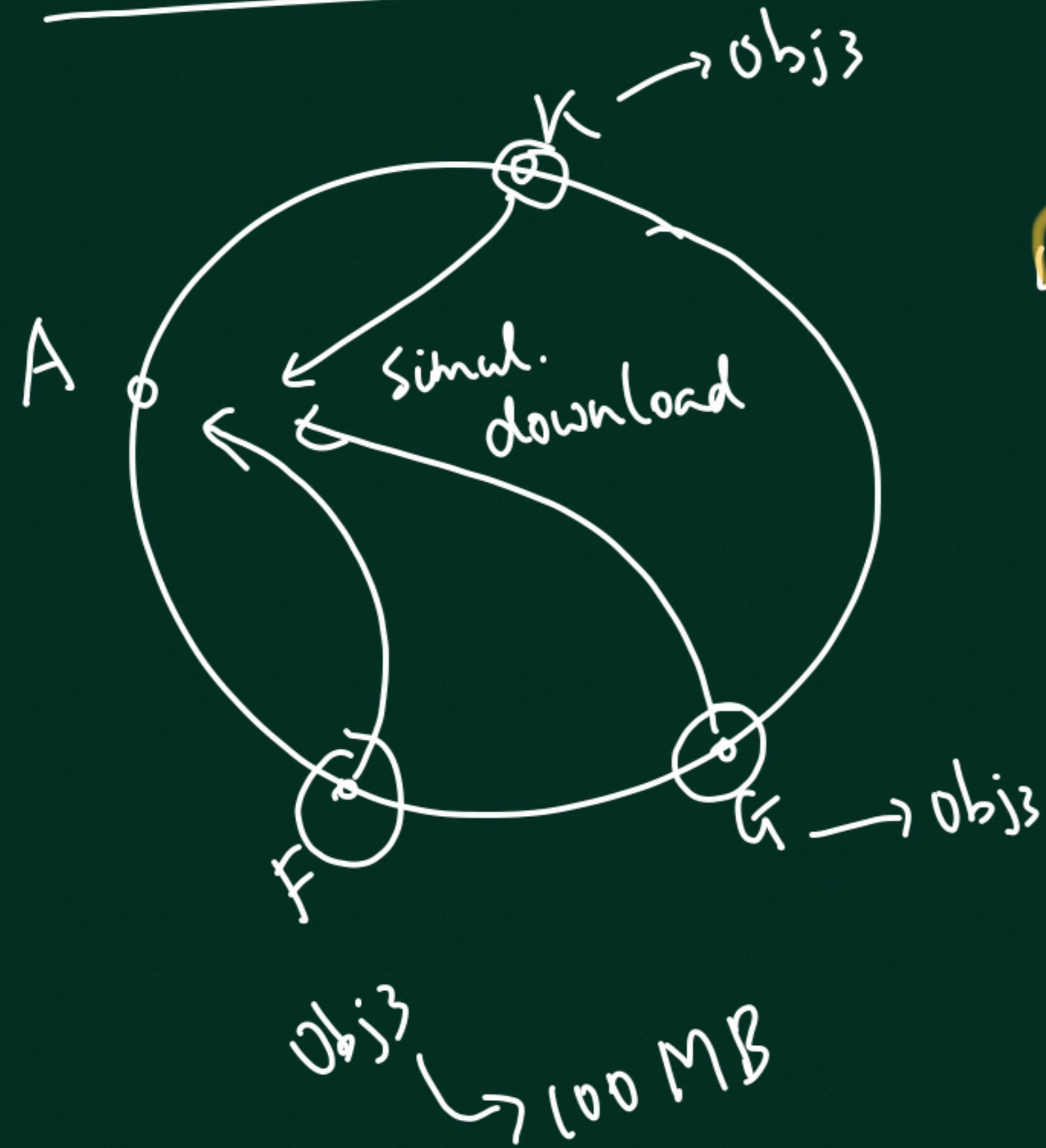
Druschel < Advisor Peterson







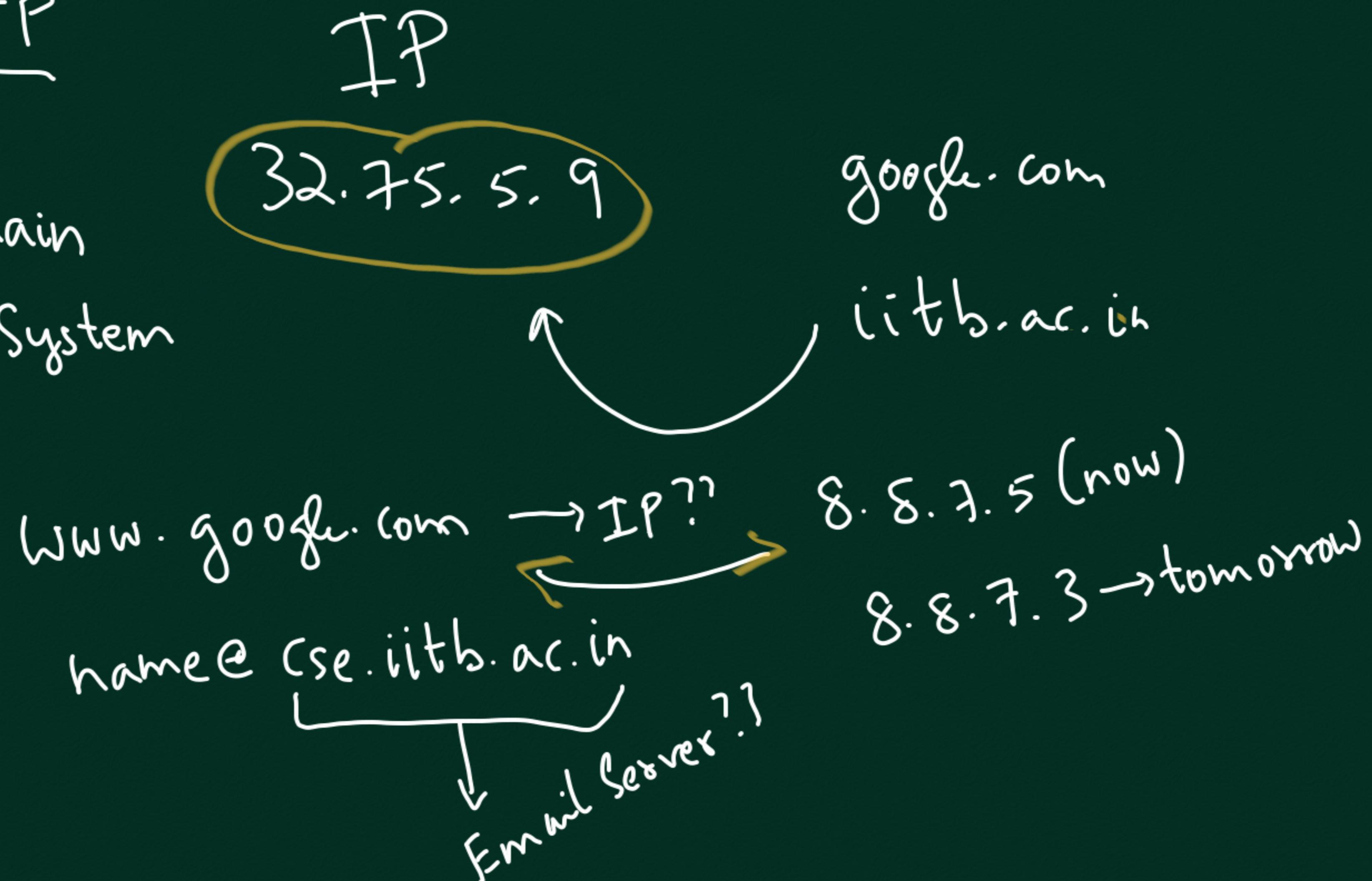
BIT-TORRENT



DNS, HTTP

DNS : Domain Name System

BGP



Naive

