

Introducing QuickCheck

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-- In QuickCheck, the Arbitrary class associates a random value generator to a type
class Arbitrary t where
  arbitrary :: Gen t -- Gen t is a way of generating random values of type t

-- Let's define Arbitrary instances of our CRDTs
instance arbitraryGSet :: (Arbitrary t, Hashable t) => Arbitrary (GSet t) where
  arbitrary = GSet <<< Set.fromArray <$> arbitrary

instance gCounterArbitrary :: Arbitrary GCounter where
  arbitrary = GCounter <<< Map.fromArray <$> arrayOf kvGen
  where
    kvGen :: Gen (Tuple ReplicaId Int)
    kvGen = Tuple <$> arbitrary <*> suchThat arbitrary (\x -> greaterThanOrEq x 0)
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