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1 Random 2 Usage

Random

This is an efficient random number generation function based on the paper Fast R andom Integer Generation in an Interval by Daniel Lemire, as well as the Golang's rand/v2 package.

Internally, it uses the Chacha8 cipher to generate random numbers. It is a crypt ographically secure pseudo-random number generator (CSPRNG) that is also very fast.

Usage

```
1
2
    test {
3
      let r = @random.Rand::new()
      assert_eq(r.uint(limit=10), 7)
5
      assert_eq(r.uint(limit=10), 0)
6
      assert_eq(r.uint(limit=10), 5)
7
      assert_eq(r.int(), 1064320769)
8
      assert_eq(r.double(), 0.3318940049218405)
9
      assert_eq(r.int(limit=10), 0)
10
      assert_eq(r.uint(), 311122750)
11
      assert_eq(r.int64(), 2043189202271773519)
12
      assert_eq(r.int64(limit=10), 8)
13
      assert_eq(r.uint64(), 3951155890335085418)
      let a = [1, 2, 3, 4, 5]
r.shuffle(a.length(), (i, j) => {
14
15
16
        let t = a[i]
17
        a[i] = a[j]
18
        a[j] = t
      })
19
20
      assert_eq(a, [2, 1, 4, 3, 5])
21
```