# IO Monad – Future

**Futures allow asynchronous effects**

**They have pure and bind (Future.success and Future.flatMap)**

**Future is not a Monad**

**Future execution is eager**

http://justinhj.github.io/2018/05/05/hacker-news-api-4.html

# IO Monad – Future

```scala
import scala.concurrent.future
import scala.util.Random
import scala.concurrent.ExecutionContext.Implicits.global

val f1 = {
  val r = new Random(0L)
  val x = Future(r.nextInt)
  for {
    a <- x
    b <- x
  } yield (a, b)
}

// Same as f1, but I inlined `x`
val f2 = {
  val r = new Random(0L)
  for {
    a <- Future(r.nextInt)
    b <- Future(r.nextInt)
  } yield (a, b)
}
```