

# IO monads

```
mainIO = hello 'seqIO' hello
  where
    hello = putsIO "hello"
```

**hello is an effect and we can now do it twice  
without breaking referential transparency**

# IO monads

In general, an action may also return a value. Again, there are two combinators. The first is again trivial:

`unitIO :: a -> IO a`

**Lift a pure A to IO[A]**

If `x` is of type `a`, then `unitIO x` denotes the action that, when performed, does nothing save return `x`. The second combines two actions:

`bindIO :: IO a -> (a -> IO b) -> IO b`

**flatMap or bind**

**sequences two effects together**