

# Pure functions are

1. **Total**
2. **Deterministic**
3. **Without side-effects**

## Functions that have side effects in the real world are not pure

```
// Side effects
def addUserToDB(id: Int, name: String)(implicit db: Database) : Boolean = {
  | db.insert(id, name)
  |
}

val u1 = addUserToDB(id = 1, name = "Justin") // True
val u2 = addUserToDB(id = 1, name = "Justin") // False (already exists)
```