MongoDB Design - Denormalization

Consideration

- Cannot do single update on denormalized data
- Copies of the same data may get out of sync
- Denormalization only makes sense when there is a high read to write ratio

Before Denormalization

```
{
    name : 'left-handed smoke shifter',
    manufacturer : 'Acme Corp',
    catalog_number: 1234,
    parts : [    // array of references to Part documents
        ObjectID('AAAA'),
        ObjectID('F17C'),
        ObjectID('D2AA'),
        // etc
    ]
}
```

After Denormalization

```
{
    name : 'left-handed smoke shifter',
    manufacturer : 'Acme Corp',
    catalog_number: 1234,
    parts : [
        { id : ObjectID('AAAA'), name : '#4 grommet' },  // Part name is denormalized
        { id: ObjectID('F17C'), name : 'fan blade assembly' },
        { id: ObjectID('D2AA'), name : 'power switch' },
        // etc
    ]
}
```