

# Data Quality Problems

## Single-Source Problems

### Schema Level

(Lack of integrity constraints, poor schema design)

- *Uniqueness*
- *Referential integrity*
- ...

### Instance Level

(Data entry errors)

- *Misspellings*
- *Redundancy/duplicates*
- *Contradictory values*
- ...

## Multi-Source Problems

### Schema Level

(Heterogeneous data models and schema designs)

- *Naming conflicts*
- *Structural conflicts*
- ...

### Instance Level

(Overlapping, contradicting and inconsistent data)

- *Inconsistent aggregating*
- *Inconsistent timing*
- ...