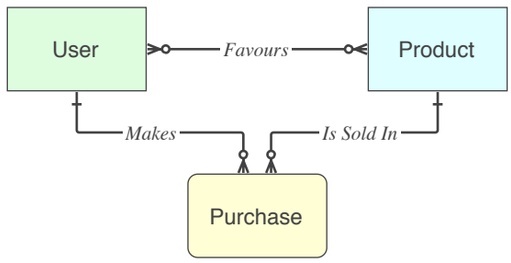
Predicate vs Table

Comparison

SOFTWARE GEMS

Along with a bit of history, to provide context.

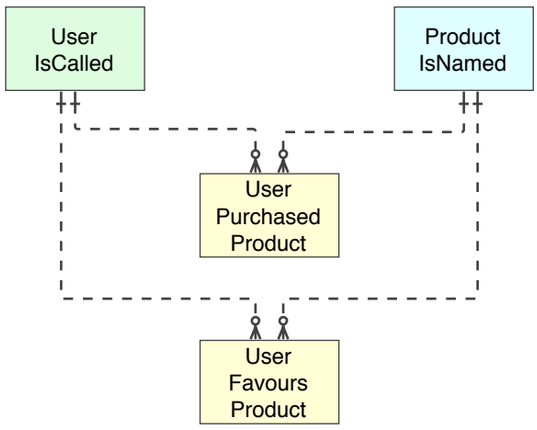
Logical Requirement

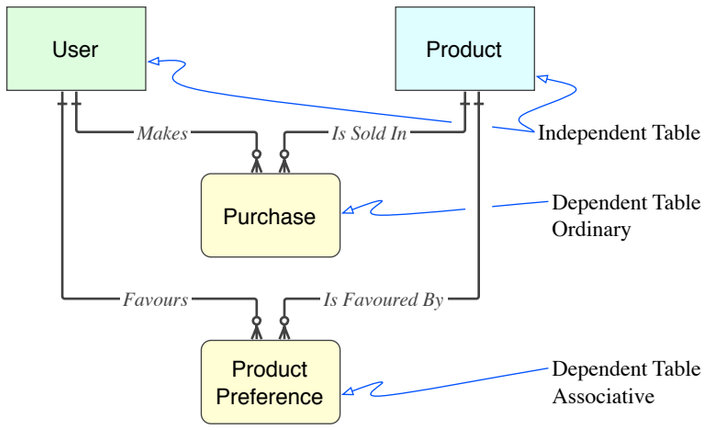


Example as per seeker's question (not mine), to suit his purpose

Implementation

Filth Marketed by "theoreticians" as "Relational"	Relational Model, Understood & Implemented by Humans
Typically a 1960's Record Filing System w physical pointers, anti-Relational	Fully compliant with Dr E F Codd's ***Relational Model*** 1970
Files, named as the "predicates they represent" (as per Question)	**Relational Tables**, named per content, precisely





Relational Model

Article	Filth Marketed by "theoreticians" as "Relational"	Relational Model, Understood & implemented by Humans
Data Set (All)	Implemented as Independent **Files** Named as **minor predicate** (reverse unknown) **Insist that everyone else does too**	• Implemented as Independent/Dependent Tables • Named according to convention, as table, Subject
Data Hierarchy	**Suppressed** • Data sets fragmented (Schizophrenic)	Understood, determined & implemented
Primary Key	**Suppressed** • **Not** made from the data as required by the *RM* • Physical, a pointer (RecordID) is used instead • One **additional field & index** per file • Access Path Independence **breached** on every file • Relational Integrity **lost**	• Genuine Relational Key (compounded, hierarchic) • Logical, made from the data, as required by the *RM*

Predicate

History re FOPC, Predicates	Learned a tiny fraction in **2011**	Understood, used, and implemented since **1984**

Predicate · Existence	Do not know that they exist	`User is independent`
		`Product is independent`
		`Purchase is dependent on User, Product`
		`ProductPreference is dependent on User, Product`

Predicate · Relation	• Do not know that they exist
	• All relations are **Non-Identifying**
		`User makes 0-to-n Purchases`
		`User favours 0-to-n ProductPreferences (Products)`
		`Product is sold in 0-to-n Purchases`
		`Product is favoured in 0-to-n ProductPreferences`

Predicate · Relation Reverse	Do not know that they exist	Easily determined from Predicates/Verb Phrases given:
		`Purchase is made by 1 User`
		`Purchase is a sale of 1 Product`

Predicate · Foreign Key	• Not named (auto-numbered by server)
	• Meaningless
		Named with Verb Phrase, identifies Predicate. Retains Meaning:
		`User_Makes_Purchase_fk`
		`User_Favours_ProductPreference_fk`
		`Product_IsSoldIn_Purchase_fk`
		`Product_IsFavouredIn_ProductPreference_fk`

Independent/Dependent	• Ignorant of the difference, the significance • All datasets implemented as **Independent Files**	• Understood, determined & implemented as such • **Relational Tables**, named per content, Subject
Associative	• Implemented as File • Named as **relation predicate** (reverse unknown) • Existence predicates unknown	• Implemented as Table • Named according to convention, as table, Subject

- This comparison addresses the issues raised in this **StackOverflow question**, only. It does not address Normalisation, Relational Keys, etc.
- You may be interested in a **Predicate Overview**, which is a proper introduction to the subject, not limited to the context of this question.