

# CCFA54

## 54<sup>th</sup> Session of the Codex Committee on Food Additives

### Understanding GSFA Database

Roberto Sciotti

Codex Alimentarius IT Expert

Chengdu  
China

# Overview

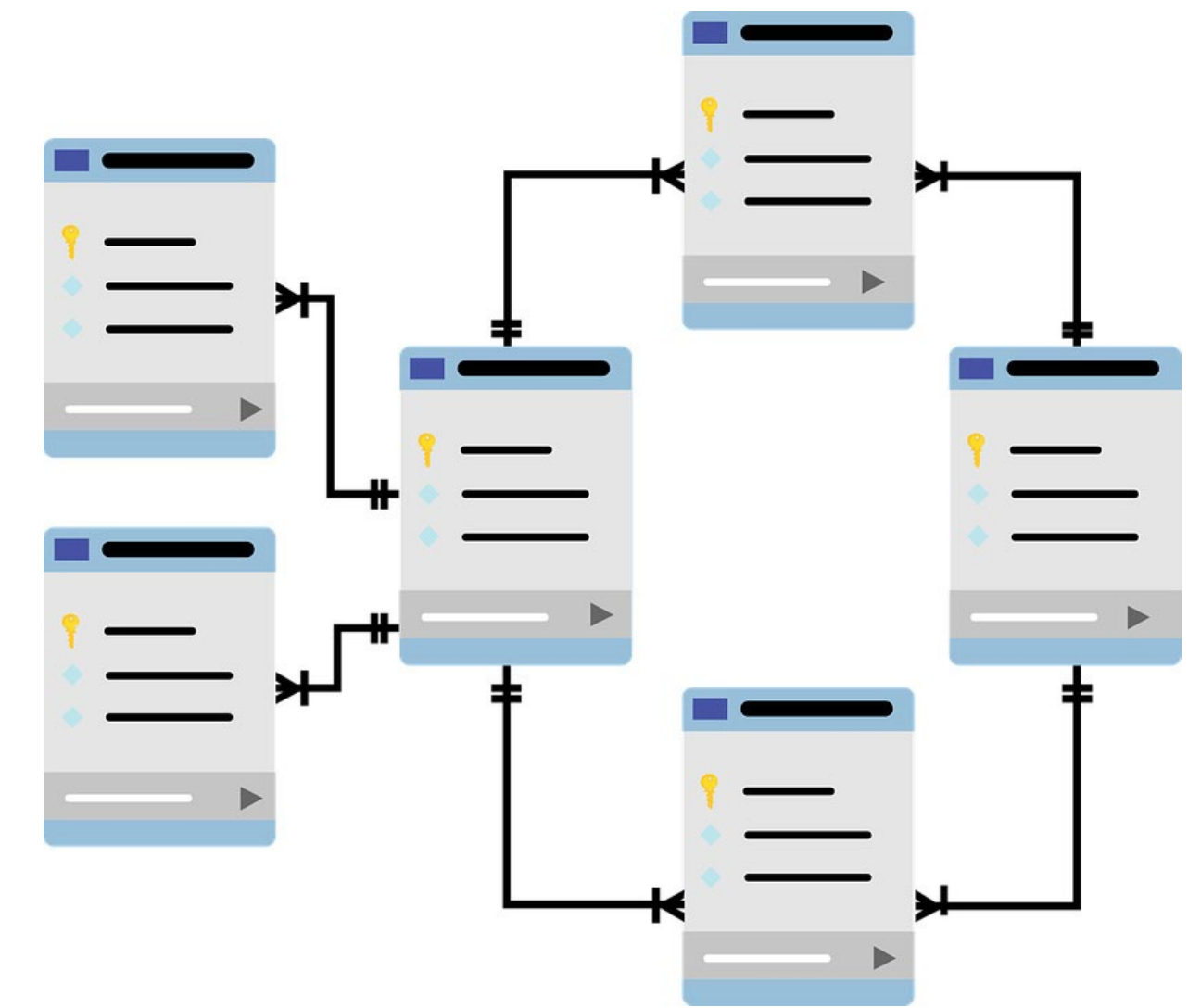
1. Quick introduction on GSFA DB
2. GSFA DB Schema
3. GSFA Data Migration process
4. Changes requested  
(Notes to Table 3 Notes, Headers, Links...)
5. Overview of new Codex IT systems
6. Conclusions



# DB Schema and its properties

A **schema** contains objects, which could be tables, columns, data types, views, procedures, relationships, primary keys, foreign keys, indexes, triggers, logical constraints etc.

It defines how data is formatted, stored, processed, secured and accessed among the various structural schema objects.



- **Data Integrity**

Well-constructed database schemas play an important role in maintaining data validity and consistency.

- **Security**

Database schemas provide robust data security.

- **Documentation**

With the schema, it's easier to troubleshoot issues and plan new developments. It also helps understand the impact of any changes.

- **Agility**

A flexible schema lets you extend features and functions smoothly.

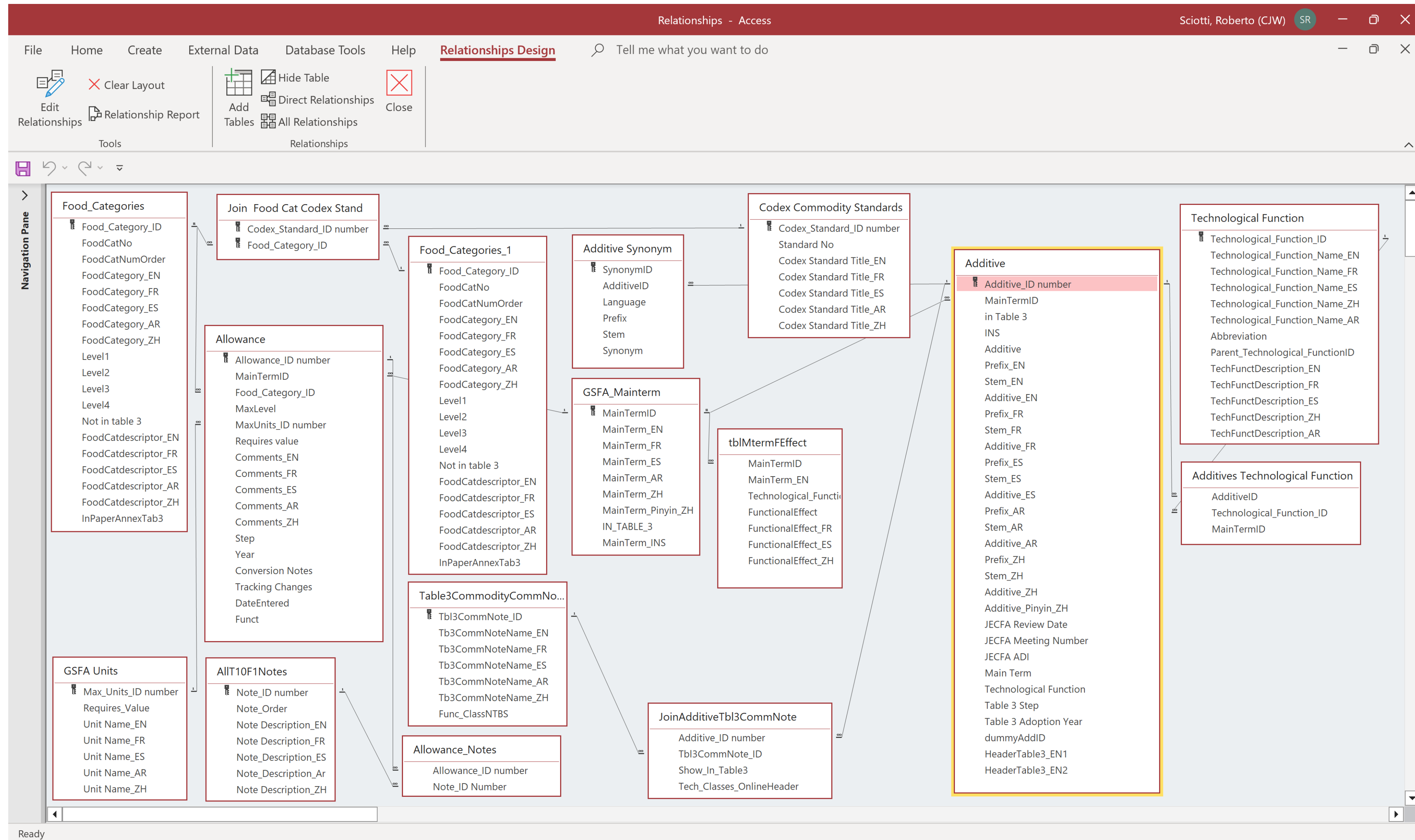
- **Analytics**

Strong database schemas provide easier and faster data analytics.

- **Governance**

Database schemas act as centralized hubs for rules and standards with guidelines for backup, monitoring, and compliance.

# GSFA DB Schema



# Join Table3 Notes

This Table has been built and published in April 2020 to show Table 3 notes in a more concise way including some information on Table 3 header and presented at CCFA52

Data entry is still a manual work.

Human errors can happen especially if it's done directly on tables (as for GSFA) and not through Forms.

Constraints and procedures are set to avoid errors.\*

**EXAMPLE 1** (case Trisodium citrate, ID=4)

Table *JoinAdditiveTbl3CommNote*

Additive Number	Footnote	Funch Classes Note
4	8	1; 11; 25
4	11	1; 11
4	25	1
4	27	1

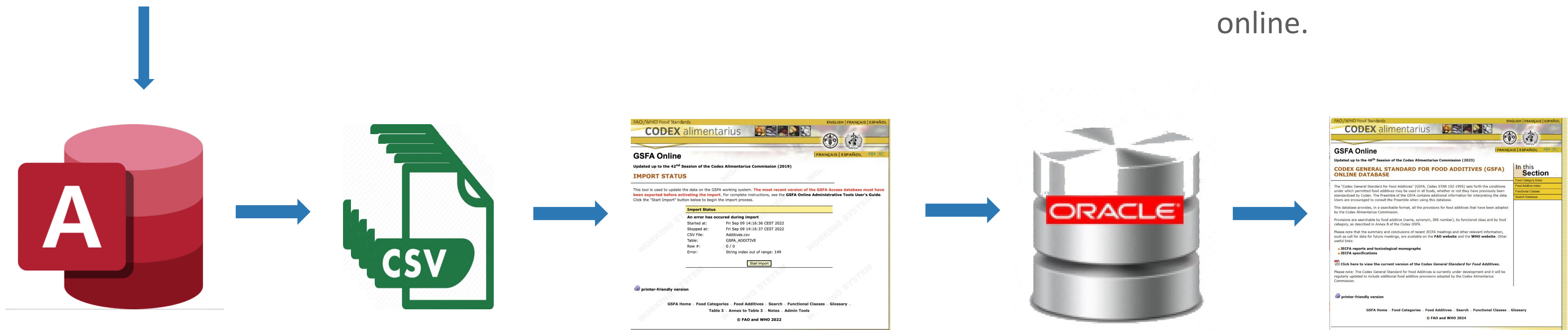
Table has to be converted in this form before publish data online

Additive Number	Footnote	Funch Classes Note
4	8	1
4	8	11
4	8	25
4	11	1
4	11	11
4	25	1
4	27	1

# GSFA Data Migration process

Source is Microsoft Access where data entry for updates is done

Once Data is validated and migrated in the Working System then it can be published online.



DATA is exported through a Macro

A Working System built in Java imports data From CSV files, validate the data and then export it into Oracle Servers\*

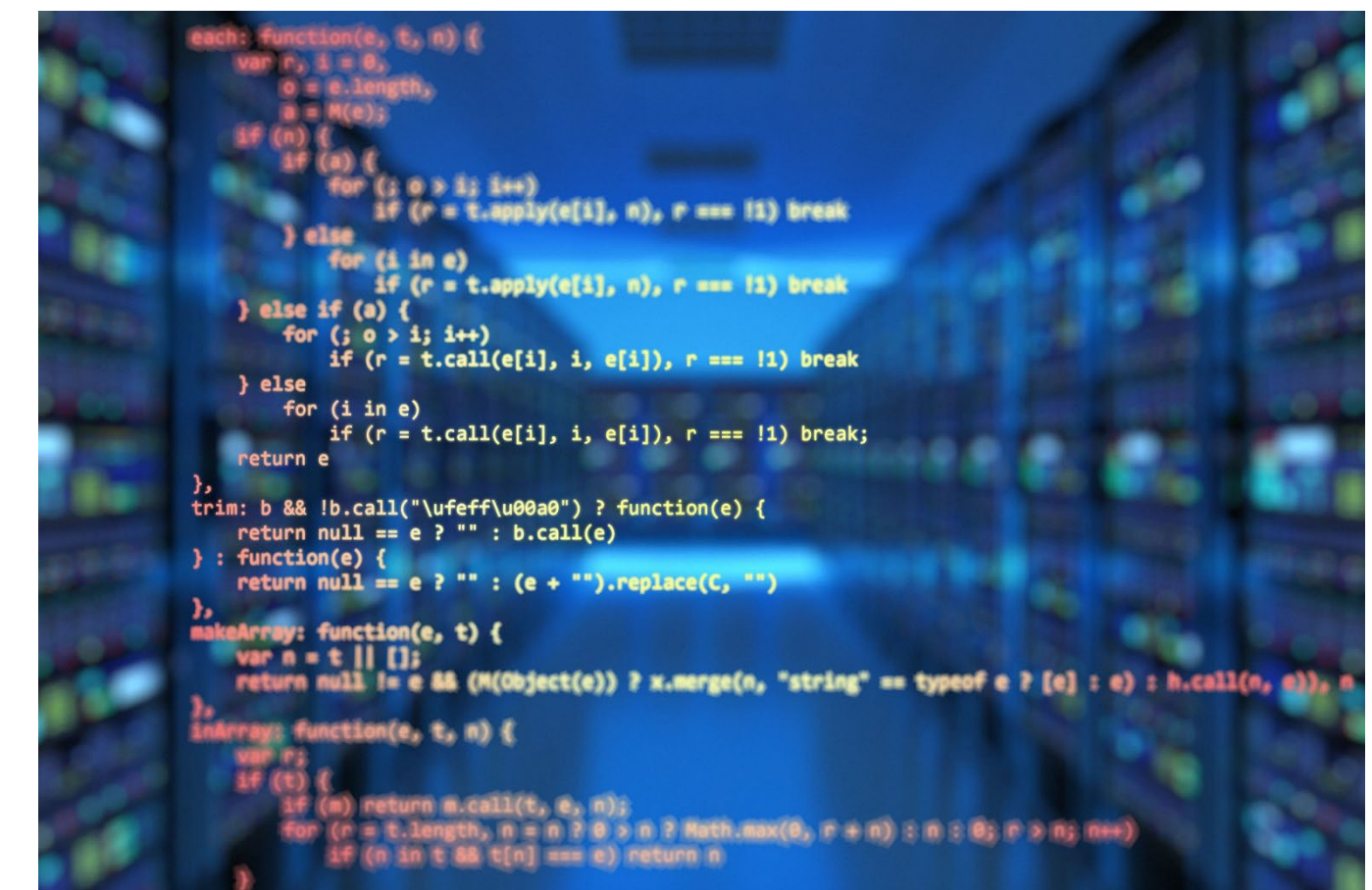
# Amendments to GSFA DB

- Notes to Table 3 Notes
- Fix links to JECFA FAO and WHO
- Alphabetical menu of Additives
- Web services (XML, JSON,...)
- Enhance user friendliness of views (both online and on PDFs)

INS No.	Additive	Functional Class	Year Adopted	Acceptable in foods conforming to the following commodity standards	Notes
551	Silicon dioxide, amorphous	Anticaking agent, Antifoaming agent, Carrier	1999	CS 105-1981, CS 251-2006, <b>CS 221-2001, CS 283-1978</b>	<b>T3-4</b>
281	Sodium propionate	Preservative	1999	CS 221-2001, CS 273-1968, CS 275-1973 <b>CS 283-1978</b>	<b>T3-6</b>
553(iii)	Talc	Anticaking agent, Glazing agent, Thickener	1999	CS 105-1981, CS 251-2006, <b>CS 221-2001, CS 283-1978</b>	<b>T3-4</b>

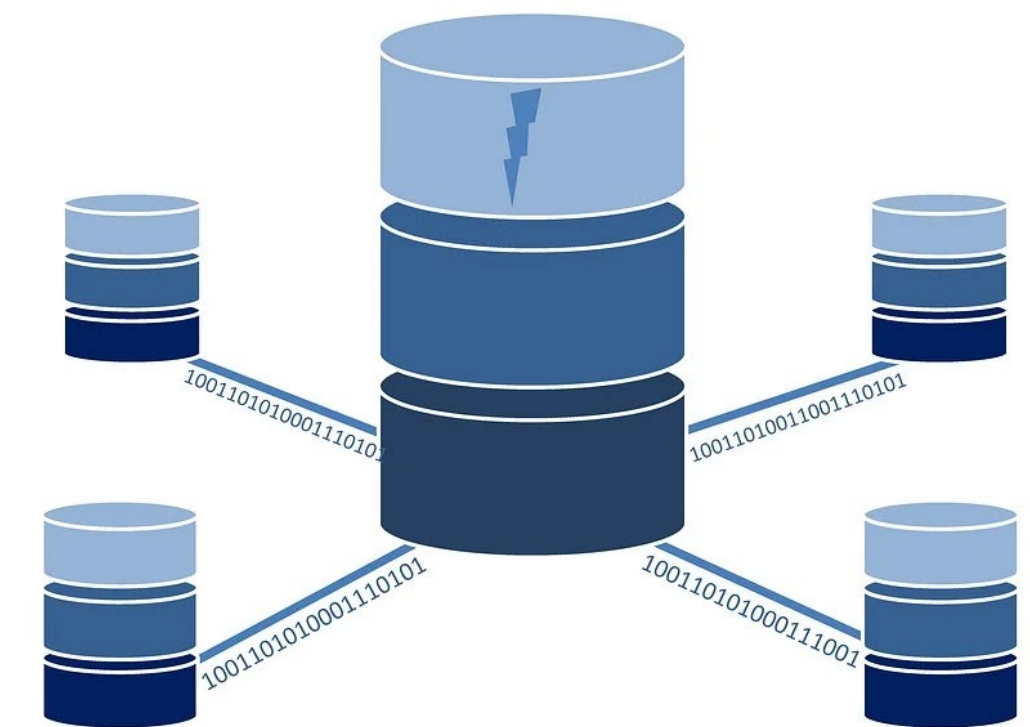
### Table 3 notes

- T3-4:** For use as anticaking agents for the surface treatment of sliced, cut, shredded or grated cheese only: silicon dioxide, amorphous (INS 551), calcium silicate (INS 552), magnesium silicate, synthetic (INS 553(i)) and talc (INS 553(iii)), singly or in combination, at 10,000 mg/kg as silicon dioxide.
- T3-6:** For surface treatment only: propionic acid (INS 280), sodium propionate (INS 281) and calcium propionate (INS 282), at 3000 mg/kg as propionic acid.



# Quick Overview of new Codex systems

- FAO needs to dismiss all (old) local servers
- New Codex website and IT platforms (Sharepoint, CMS, DBs)
- Temporary layout (in progress)
- Migration of current DBs and creation of new ones
- Web services (XML, JSON,...)







THANK YOU FOR YOUR ATTENTION

For feedbacks and comments please contact me at:  
[Roberto.sciotti@fao.org](mailto:Roberto.sciotti@fao.org)