

# SCRIPTING IN MULTIPLE LANGUAGES



### Ben Guaraldi

Technical Lead for DATIM (the PEPFAR installation of DHIS 2)

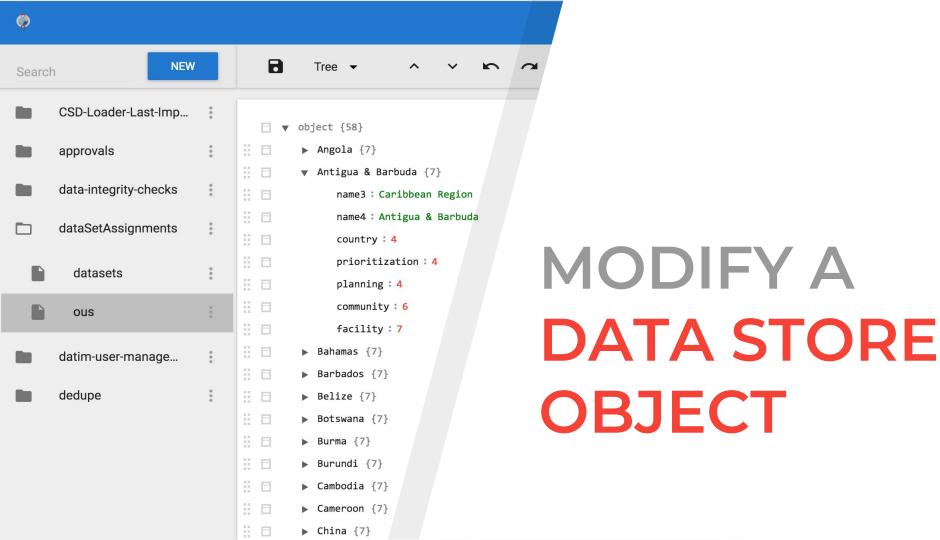
### WHO AM I?

#### **CODING EXPERIENCE**

- ► Basic
- ► DOS Batch
- ► Visual Basic
- ► C++
- ► Javascript
- ► Perl

- ► PHP
- ► SQL
- ► Bash
- Python
- ▶ Java
- ► R

# 2. THE PROBLEM



# 3. PYTHON

#### **PYTHON CHARACTERISTICS**

- Created in 1991
- Heightened popularity around 2004, partially due to Google
- Designed for ease of writing code and readability (e.g., semantic indenting)
- Great all-purpose programming tool

4.
BASH

#### **BASH CHARACTERISTICS**

- ► Created in 1989; ancestors include:
  - Bourne shell (1979)
  - Thompson shell (1975)
  - Multics (1965)
- ► Included with Linux, OS X, and even Windows
- Designed to execute commands interactively;
   not originally for scripting
- ► Is generally available but not a good idea for anything other than simple scripts

.

#### R CHARACTERISTICS

- Created in 1993; based on S (1976)
- ► Heightened popularity in the mid-2000s
- Many statistical processes that are extremely difficult in other languages are straightforward in R
- ► Favorite language of pirates

**6.** SQL

### **SQL CHARACTERISTICS**

- Created in the mid-1970s
- ▶ Became popular in the 1980s and is the most widely used database language
- Can be used procedurally, but often is written in single statements and used with other languages
- ► Different implementations are not fully compatible with each other

## 7. CODA

#### **FUTURE WORK**

- ► node.js
- ► Java
- ► Visual Basic
- ► LOLCODE
- ► Brainfsck

#### **THANKS!**

### Any questions?

Contact: ben@dhis2.org

Code files on Github: bit.ly/hispus\_sml