



SCRIPTING IN MULTIPLE LANGUAGES



Ben Guaraldi

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

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1.

WHO AM I?

CODING EXPERIENCE

- ▶ Basic
- ▶ DOS Batch
- ▶ Visual Basic
- ▶ C++
- ▶ Javascript
- ▶ Perl
- ▶ PHP
- ▶ SQL
- ▶ Bash
- ▶ Python
- ▶ Java
- ▶ R

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2.

THE PROBLEM

Search NEW Tree

- folder CSD-Loader-Last-Imp...
- folder approvals
- folder data-integrity-checks
- folder dataSetAssignments
- file datasets
- file ous**
- folder datim-user-manage...
- folder dedupe

```
object {58}
├── Angola {7}
├── Antigua & Barbuda {7}
│   ├── name3 : Caribbean Region
│   ├── name4 : Antigua & Barbuda
│   ├── country : 4
│   ├── prioritization : 4
│   ├── planning : 4
│   ├── community : 6
│   └── facility : 7
├── Bahamas {7}
├── Barbados {7}
├── Belize {7}
├── Botswana {7}
├── Burma {7}
├── Burundi {7}
├── Cambodia {7}
├── Cameroon {7}
└── China {7}
```

MODIFY A DATA STORE OBJECT

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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

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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

5.

R

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

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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

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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