Boolean fields

Overview

When using a field as a Boolean switch, it's desirable to limit the potential for bad data entry - or your own bad coding! This is similar to using a validation on a phone number field, where strict requirements must be met. Because the validation is strictly enforced, this will increase your level of confidence with regards to the contents of Boolean fields.

Guidelines

The following guidelines are suggested for Boolean fields.

- Use a numeric field type
- Prefix the field name with a Boolean word such as is or isNot (e.g. isStudent or isCustomer)
- Specify the field to Always validate (image 1) and turn off "Allow user to override during data entry" (this assumes your users won't be directly interacting with the field and will likely be using a script or some type of trigger)
- Specify a calculated validation similar to the following (image 2)
  
  ```plaintext
  Self = 1 or Self = 0
  ```

- Specify a custom message similar to the following
  
  Internal developer message: This value should be Boolean!

  (this means if users actually see this message in production, you've done a bad job of coding 😞 (image 3))

1/0 vs. 1/Null

This best practice assumes you're not attempting to HIGHLY OPTIMIZE your data storage and you're Ok with storing a zero (0) for a false value. If you're using a 1/Null setup, then you'll need to adjust the validation calculation accordingly.

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**Image #1**

Validate data in this field:

- [ ] Always
- [ ] Only during data entry
- [ ] Allow user to override during data entry

**Image #2**

Validation for field "isBoolean" =

- [ ] Self = 1 or Self = 0
Boolean switching via scripting

There are a number of ways to switch a 1 to a 0 and a 0 to a 1. The most efficient is to use the `xor` operator. Here’s an example:

```python
$isStudent xor 1
```

or to use the standards specified on this site, the more readable is this

```python
$isStudent xor True
```