

new codebase
who dis?

Samuel Taylor

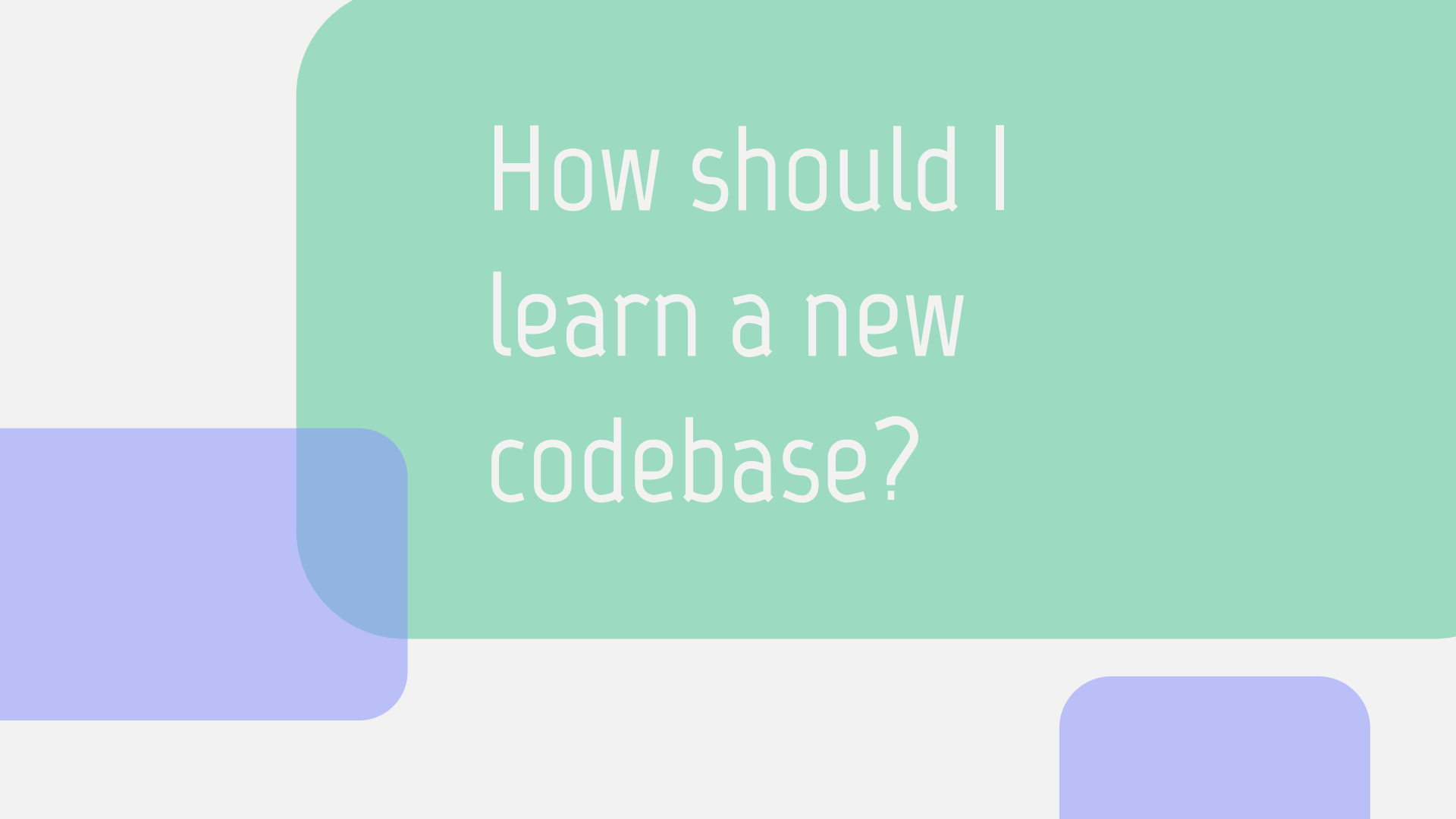
Sr. AI Engineer
Acrisure Technology Group



drewsoulman



drewsoulman



How should I
learn a new
codebase?



00

INTRO

(you are here)

DAY I

01

02

MINDSET

PROCESS

03

TOOLS

04

01

Day 1

Three steps to success

Paying attention while setting up the dev environment will reap dividends

- Understand what services you're running
- Understand interservice dependencies
- Take specific notes
- Run the tests, then break them

Senior members of the team should help you understand the architecture

- Look for a document/diagram
- Ask questions
 - What repos do we own?
 - How does a feature get from my laptop to prod?
 - What vendors/API's do we rely on?
- Create or update the architecture document

You are doomed if you don't understand the business

- Understand mission, products, goals
- Figure out your team's contribution
 - How can we impact company goals?
 - Who gets mad if our code breaks horribly?

02

Mindset

Learn by doing

"Ultralearning is like a superpower in our competitive economy.
Read this book! It will change your life."
—CAL NEWPORT, author of *Digital Minimalism* and *Deep Work*

ULTRALEARNING

Master Hard Skills,
Outsmart the Competition, and
Accelerate Your Career

Scott H. Young

Foreword by JAMES CLEAR, author of *Atomic Habits*

Antonello Calamea

The easiest way to learn directly is to simply spend a lot of time doing the thing you want to become good at.

Scott Young,
Ultralearning

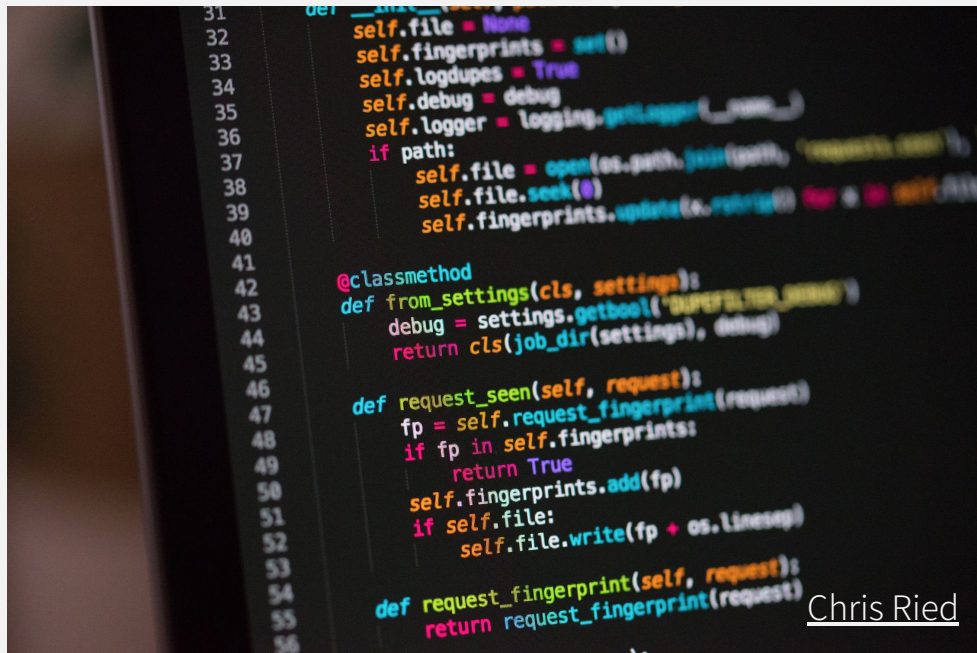
Deep understanding comes by making an impact

- DO: Understand code well enough to make a change
- DON'T: Read every line

Reading a book is very different from reading code



Blaz Photo



Chris Ried

Your knowledge will grow recursively

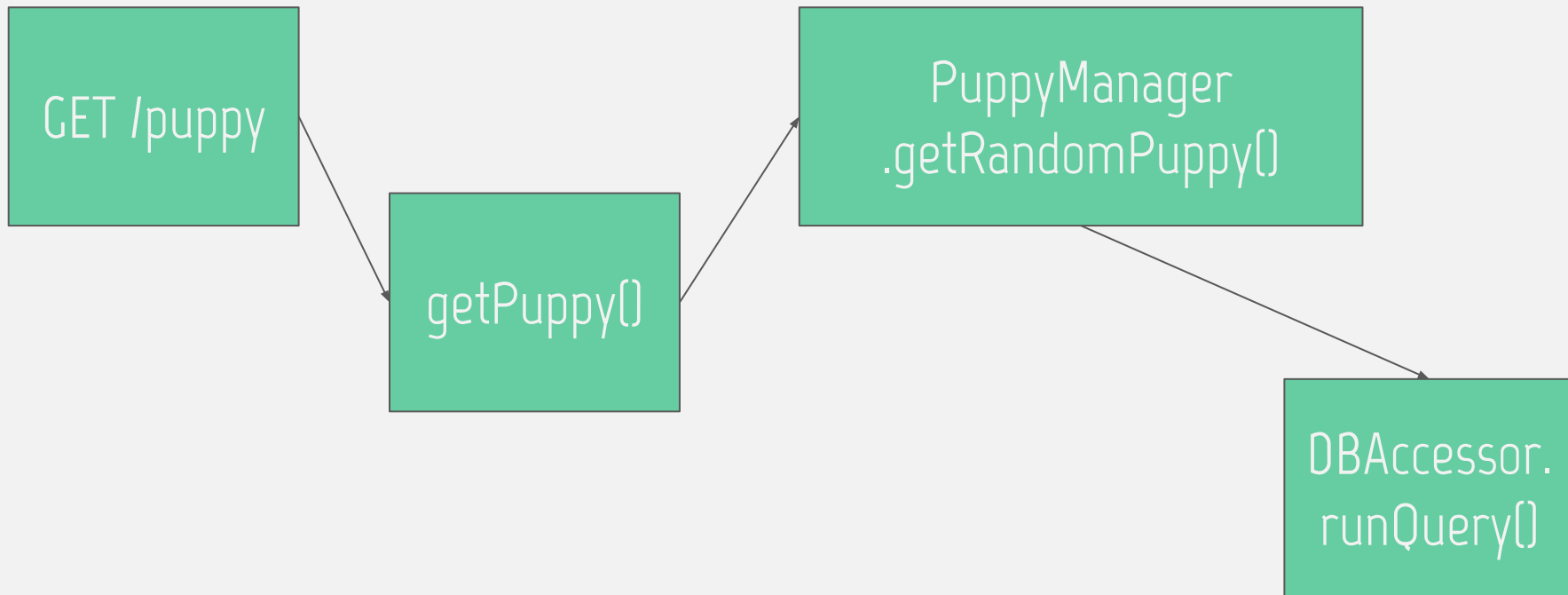
1. Understand what the services do
2. Identify what service you need to modify
3. Understand modules of that service
4. Within a given module, know the classes
5. ...
6. Understand an individual line of code

“Chunking” is the brain’s ability to bind detailed information into a concept that is easy to remember

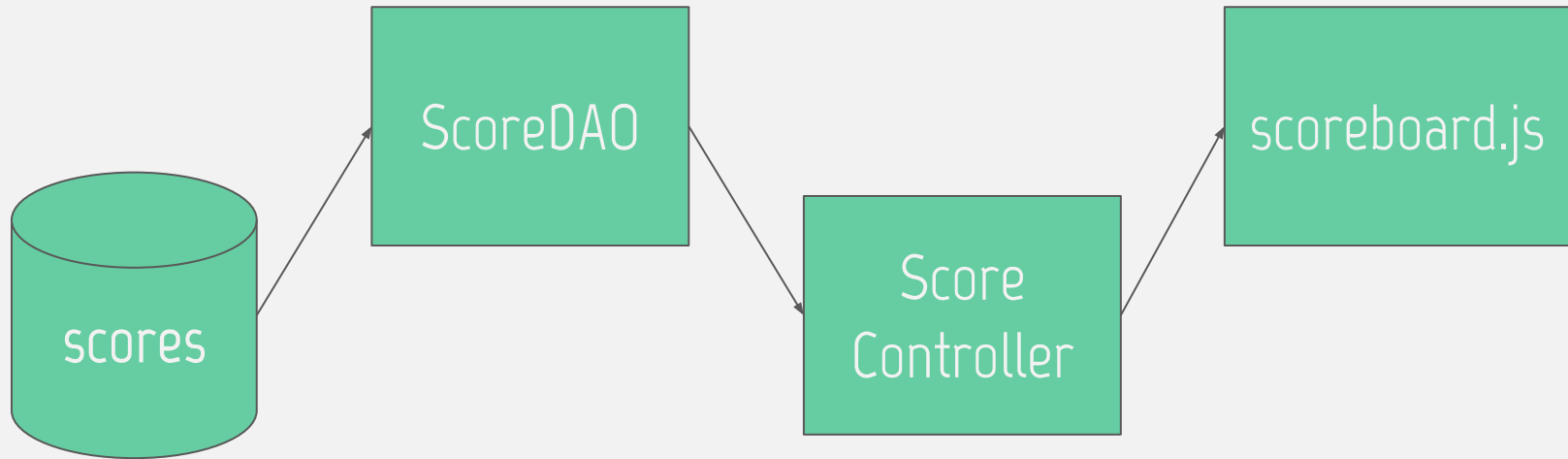


Michael Benz

Think in terms of code paths and data flows



Think in terms of code paths and data flows



03

Process

Use the scientific method

Process

01

Find relevant code

Process

01

Find relevant code

02

Form a hypothesis

about what you need to
change

Process

01

Find relevant code

02

Form a hypothesis

about what you need to
change

Test your
hypothesis

after making the change.
Return to 02 if you were
wrong.

03

Process

01

Find relevant code

02

Form a hypothesis

about what you need to
change

Test your
hypothesis

after making the change.
Return to 02 if you were
wrong.

Improve quality

03

04

04

Tools

Finding relevant code

**Run the
code**

- Understand what exists
- Use the debugger

Finding relevant code

**Search
the
project**

- JIRA, Asana, Pivotal Tracker
- GitHub, GitLab issues

New search

«

Search

Save as

Export ▾

Tools ▾

Project... ▾

Type: All ▾

Status:... ▾

Assign... ▾

datetime

More ▾

Search

Advanced

🔍 ▾

Find filters

FILTERS

My open issues

Reported by me

All issues

Open issues

Done issues

Viewed recently

Created recently

Resolved recently

Updated recently

FAVOURITE FILTERS

You must be **logged in**
to view favourite filters.

Order by



ARROW-7528

[Python] The pandas.datetime class (...)



BEAM-4723

Enhance Datetime*Expression Dateti...



BEAM-5510

Records including datetime to be sav...



PIG-3341

Strict datetime parsing and improve ...



WICKET-466

[datetime] Make DateConverter focu...



LUCENENET-231

System.DateTime.Now.Millisecond bug



DAFFODIL-105

DateTime - Text



SPARK-22966

Spark SQL should handle Python UD...



AXIS-1481

No deserializer for dateTime



ARROW-9755

[Python] pyarrow deserialize return d...



ARROW-8066

[Python] Specify behavior for conver...



ASTERIXDB-1430

Upstream bug in loading datetime



Pig / PIG-3341

4 of 3893

Strict datetime parsing and improve performance of loading datetime values

Export ▾

Details

Type:



Improvement

Status:

CLOSED

Priority:

Major

Resolution:

Fixed

Affects Version/s:

0.11.1

Fix Version/s:

0.12.0, 0.11.2

Component/s:

impl

Labels:

None

Description

The performance of loading datetime values can be improved by about 25% by moving a single line in ToDate.java:

```
public static DateTimeZone  
extractDateTimeZone(String dtStr) {  
    Pattern pattern = Pattern.compile("  
    (Z|(?<=(T[0-9]\\.:|  
    {0,12}))((\\+|-)  
    d{2}):?)
```

People

Assignee:



Rohini Palaniswamy

Reporter:



pat chan

Votes:



Vote for this issue

Watchers:



Start watching this issue

Dates

Created:

31/May/13 06:11

Updated:

01/Oct/19 22:10

Resolved:

13/Jun/13 13:07

Enable local test runner for Kubeflow Pipelines #1138

New issue

Open

neuromage opened this issue on Apr 11, 2019 · 15 comments



neuromage commented on Apr 11, 2019

Collaborator ...

Today, there is no way to run a KFP pipeline on a local machine (outside of running a mini Kubernetes cluster locally). This makes testing pipelines for user difficult as they always have to go through the steps of uploading to a cluster to run even small tests on the correctness of the pipeline.

To solve this problem, it would be nice if KFP offers a way to run pipelines locally. Such a mode does not have to have full fidelity with what's possible in a cluster run with Argo to begin with. A simple approach of using `docker run` to run each step sequentially, with a mounted local volume for passing parameters, will go a long way towards satisfying most local-run use-cases.

As a suggestion, we can modify the pipeline decorator to enable this behaviour when the user adds a keyword like `test = True`, i.e.

```
@dsl.Pipeline(  
    name = "...",  
    test = True,  
    ...
```



7

neuromage added the `feature_request` label on Apr 11, 2019

issue-label-bot bot commented on Apr 11, 2019

...

Issue-Label Bot is automatically applying the label `feature_request` to this issue, with a confidence of 0.98. Please mark this comment with 👍 or 👎 to give our bot feedback!

Links: [dashboard](#), [app homepage](#) and [code](#) for this bot.

Assignees

Ark-kun

rmgogogo

Labels

`area/sdk/dsl` `kind/feature``lifecycle/frozen``needs investigation` `priority/p2`

Projects

KFP Post 1.0 Backlog

Backlog

Milestone

No milestone

Linked pull requests

Successfully merging a pull request may close this issue.

None yet

9 participants



Finding relevant code

**Search
the code**

- Silver Searcher (ag), ripgrep

```
$ ag phoneme
```

```
src/app.py
```

```
22: def word_to_phonemes(word):
```

```
75: logger.info('Loading phoneme data')
```

```
107:     target = word_to_phonemes(input_string)
```

```
115:     word_phonemes = [word_to_phonemes(w) for w in words]
```

```
117:     scored_idioms.extend((lev_dist(target, word_phoneme) / len(word_phoneme)  
    replace_word(idiom, ndx, input_string))
```

```
118:         for ndx, word_phoneme in enumerate(word_phonemes)
```

```
119:             if word_phoneme is not None)
```

```
src/data/cmudict
```

```
91317: PHONEME F OW1 N IY0 M
```

```
91318: PHONEMES F OW1 N IY0 M Z
```

Finding relevant code

Search the code

- Silver Searcher (ag), ripgrep
- OpenGrok, SourceGraph
- GitHub, GitLab org search

{OpenGrok

Home Sort by: last modified time | **relevance** | path

Full Search

Definition

Symbol

File Path

History

Type

Search

Clear

Help

In Project(s)

select all

invert selection

VanDieijen
angularplay
blikvanger
exportphoto
gerbrand-ict.nl
twistedmind.nu

Searched **+defs:*Util* +type:java** (Results **1 - 5** of **5**) sorted by relevance

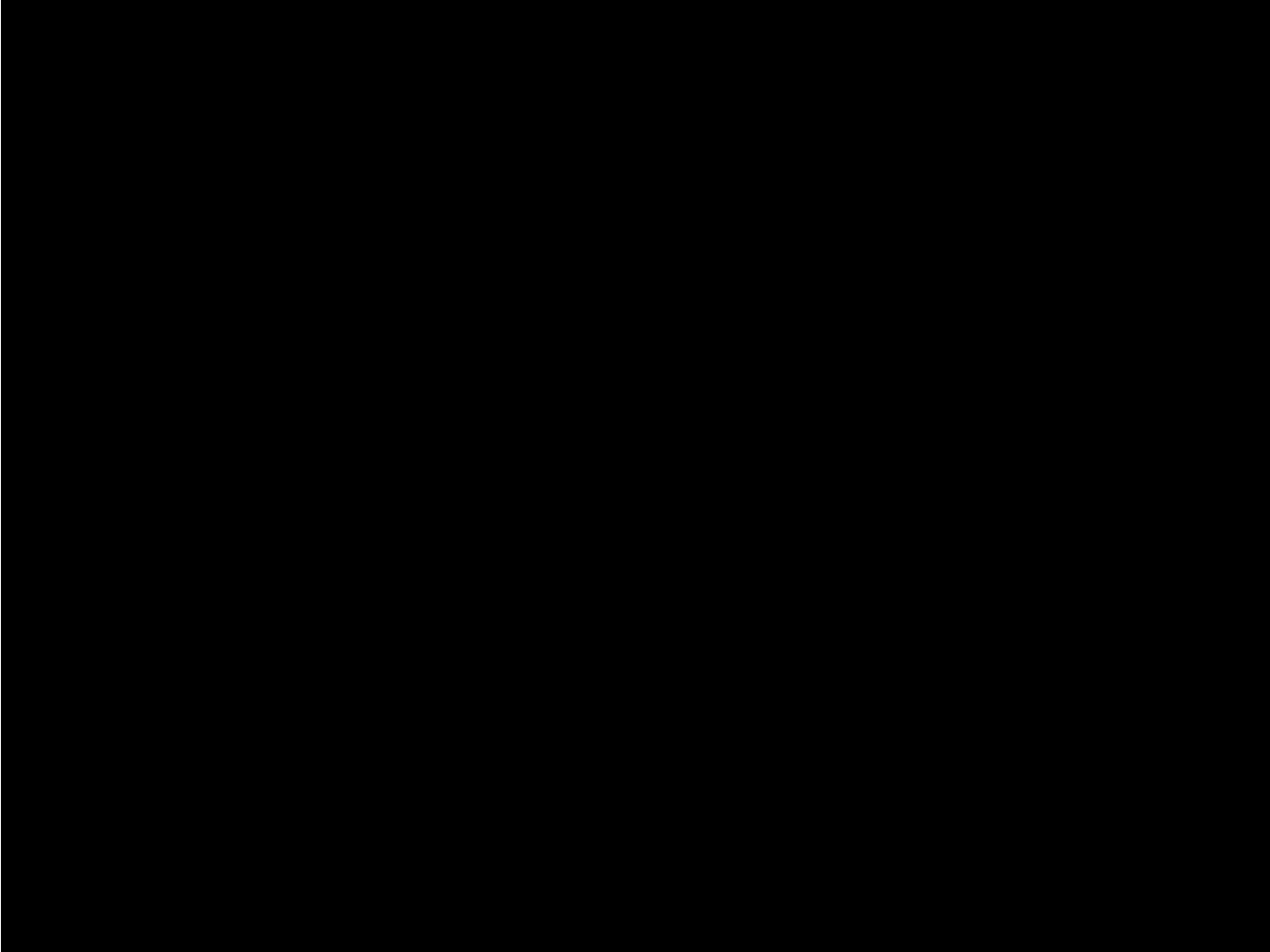
/Engelvaart/engelvaart/VanDieijenCommon/src/com/vandiejien/common/

HAD	FileUtil.java	16	public final class FileUtil { class
HAD	FormUtil.java	19	final public class FormUtil { class
HAD	GUIResourceUtilizer.java	48	final public class GUIResourceUtilizer { class
		82	public GUIResourceUtilizer (String name) { method in class:GUIResourceUtilizer
		86	public GUIResourceUtilizer (ResourceBundle resources) { method in class:GUIResourceUtilizer
HAD	Util.java	22	public class Util { class
		27	public Util () { method in class:Util

Gerbrand

Understanding code

- IDE
 - (I like JetBrains' Cmd+Click)



Understanding code

- IDE
 - (I like JetBrains' Cmd+Click)
- Remember to create "chunks"

Understanding code

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- Remember to create "chunks"
- Notes, diagrams

Understanding code

- IDE
 - (I like JetBrains' Cmd+Click)
- Remember to create "chunks"
- Notes, diagrams
- Ask for help (use git blame)

```

79e71b98 (Conrado Quilles Gomes 2018-01-02 18:33:55 -0200 55)
79e71b98 (Conrado Quilles Gomes 2018-01-02 18:33:55 -0200 56)
79e71b98 (Conrado Quilles Gomes 2018-01-02 18:33:55 -0200 57)
401ca63d (romainx 2018-01-04 22:20:40 +0100 58)
79e71b98 (Conrado Quilles Gomes 2018-01-02 18:33:55 -0200 59)
79e71b98 (Conrado Quilles Gomes 2018-01-02 18:33:55 -0200 60)
79e71b98 (Conrado Quilles Gomes 2018-01-02 18:33:55 -0200 61)
401ca63d (romainx 2018-01-04 22:20:40 +0100 62)
9e5848d2 (romainx 2018-01-01 11:05:19 +0100 63)
401ca63d (romainx 2018-01-04 22:20:40 +0100 64)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 65)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 66)
6a452f7f (jos 2016-01-24 14:41:16 -0500 67)
9e5848d2 (romainx 2018-01-01 11:05:19 +0100 68)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 69)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 70)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 71)
s, see todo
bdb43228 (romainx 2018-01-01 18:17:02 +0100 72)
6a452f7f (jos 2016-01-24 14:41:16 -0500 73)
9e5848d2 (romainx 2018-01-01 11:05:19 +0100 74)
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bdb43228 (romainx 2018-01-01 18:17:02 +0100 76)
79e71b98 (Conrado Quilles Gomes 2018-01-02 18:33:55 -0200 77)
e4a0998e (jos 2016-08-14 18:49:36 -0400 78)
401ca63d (romainx 2018-01-04 22:20:40 +0100 79)
401ca63d (romainx 2018-01-04 22:20:40 +0100 80)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 81)
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bdb43228 (romainx 2018-01-01 18:17:02 +0100 83)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 84)
85e622a6 (romainx 2016-05-22 01:23:48 +0200 85)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 86)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 87)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 88)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 89)
85e622a6 (romainx 2016-05-22 01:23:48 +0200 90)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 91)
bdb43228 (romainx 2018-01-01 18:17:02 +0100 92)
0762fd54 (Conrado Quilles Gomes 2018-01-02 00:44:47 -0200 93)
it could be a categorical field
0762fd54 (Conrado Quilles Gomes 2018-01-02 00:44:47 -0200 94)
9e5848d2 (romainx 2018-01-01 11:05:19 +0100 95)
e4a0998e (jos 2016-08-14 18:49:36 -0400 96)

```

```

result = [value_counts_without_nan, distinct_count_with_nan]

if data.name is not None:
    _VALUE_COUNTS_MEMO[data.name] = result

return result

_MEMO = {}
def get_vartype(data):
    """Infer the type of a variable (technically a Series).

    The types supported are split in standard types and special types.

    Standard types:
        * Categorical (`TYPE_CAT`): the default type if no other one can be determined
        * Numerical (`TYPE_NUM`): if it contains numbers
        * Boolean (`TYPE_BOOL`): at this time only detected if it contains boolean value

        * Date (`TYPE_DATE`): if it contains datetime

    Special types:
        * Constant (`S_TYPE_CONST`): if all values in the variable are equal
        * Unique (`S_TYPE_UNIQUE`): if all values in the variable are different
        * Unsupported (`S_TYPE_UNSUPPORTED`): if the variable is unsupported

    The result is cached by column name in a global variable to avoid recomputing.

    Parameters
    -----
    data : Series
        The data type of the Series.

    Returns
    -----
    str
        The data type of the Series.

    Notes
    ----
        * Should improve verification when a categorical or numeric field has 3 values,
          or just a boolean with NaN values
        * #72: Numeric with low Distinct count should be treated as "Categorical"
    """

```

Working with libraries

- Library docs
- StackOverflow
- GitHub search

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1,200 code results

Sort: Best match ▾



HardCoreWare/mtvpro

[vendor/google/cloud/BigQuery/src/QueryJobConfiguration.php](#)

```
30 * $query = $bigQuery->query('SELECT commit FROM `bigquery-public-
    data.github_repos.commits` LIMIT 100');
31 * ```
32 */
33 class QueryJobConfiguration implements JobConfigurationInterface
34 {
35     use JobConfigurationTrait;
36     ...
67 * {@see Google\Cloud\BigQuery\QueryJobConfiguration::destinationTable()} to
68 * be set.
69 *
70 * Example:
71 * ```
72 * $query->allowLargeResults(true);
```

● PHP Showing the top two matches Last indexed on Oct 24, 2018



Danden7/rekrutacja2

[vendor/google/cloud/src/BigQuery/QueryJobConfiguration.php](#)

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● PHP Showing the top two matches Last indexed on Nov 8, 2019



Clicker1988/administration

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QueryJobConfiguration



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643 code results

Sort: Recently indexed ▾



all-of-us/workbench

[api/src/main/java/org/pmiops/workbench/billing/FreeTierBillingService.java](#)

```
4  import com.google.cloud.bigquery.QueryJobConfiguration;
5  import com.google.common.collect.Sets;
6  import com.google.common.math.DoubleMath;
...
248      .collect(Collectors.toMap(DbWorkspace::getWorkspaceNamespace,
Function.identity()));
249
250      final QueryJobConfiguration queryConfig =
251          QueryJobConfiguration.newBuilder(
```



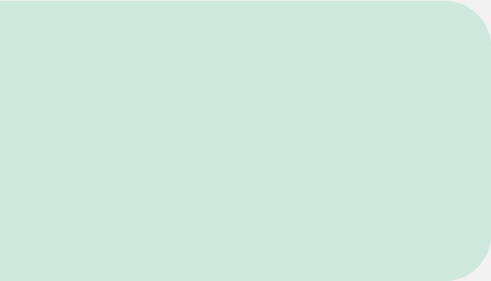
Java Showing the top three matches Last indexed 3 hours ago



GoogleCloudPlatform/professional-services

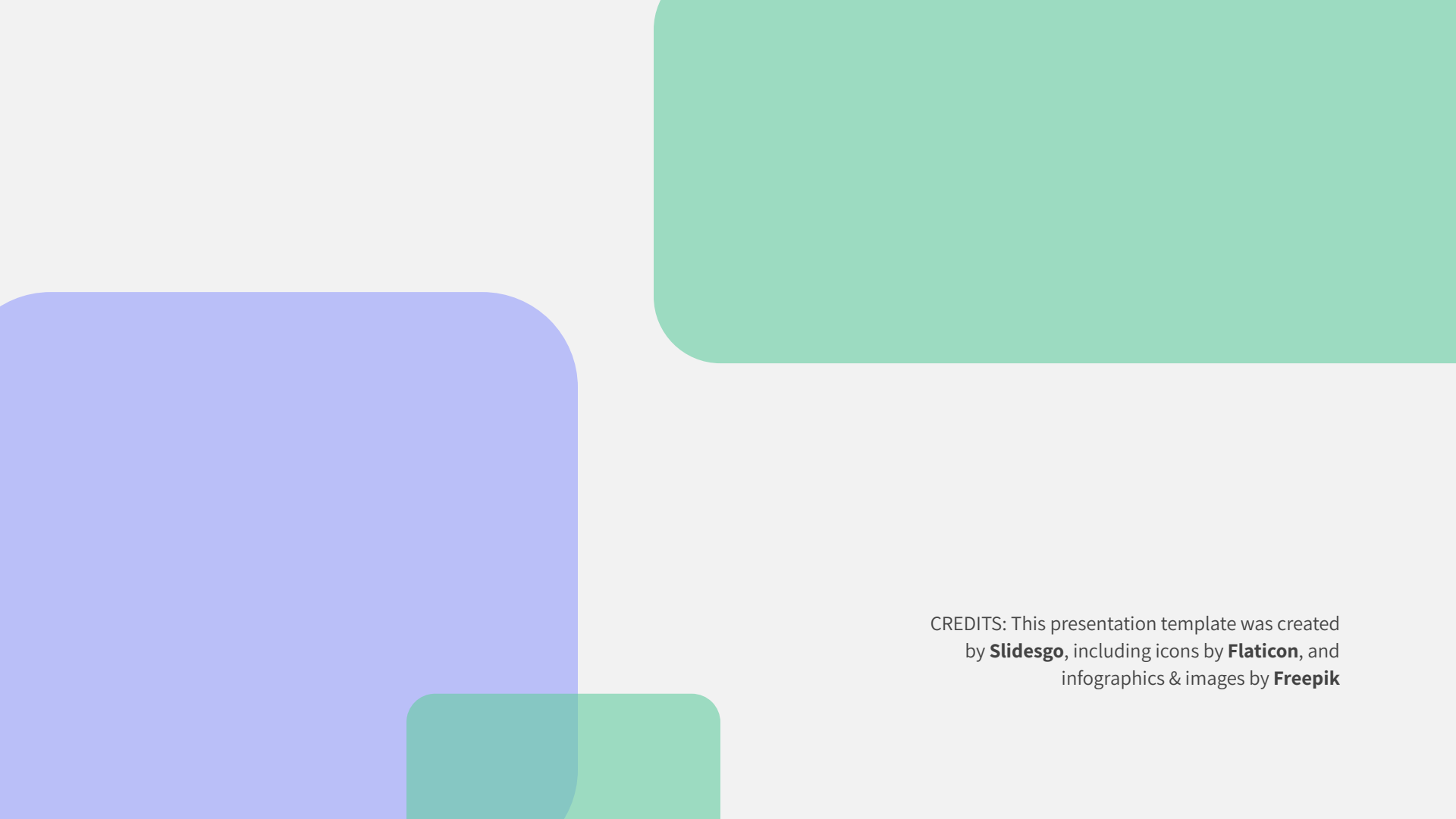
[examples/e2e-test-dataflow/src/main/java/util/BQUtils.java](#)

```
22  import com.google.cloud.bigquery.QueryJobConfiguration;
23  import java.util.logging.Logger;
24
25  public class BQUtils {
26      private static final BigQuery bigquery =
```

- 
- Focus on delivering software
 - Provide value to your team
 - Decrease cognitive load
-

Samuel Taylor
@SamuelDataT
sdf@samuelstaylor.org





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