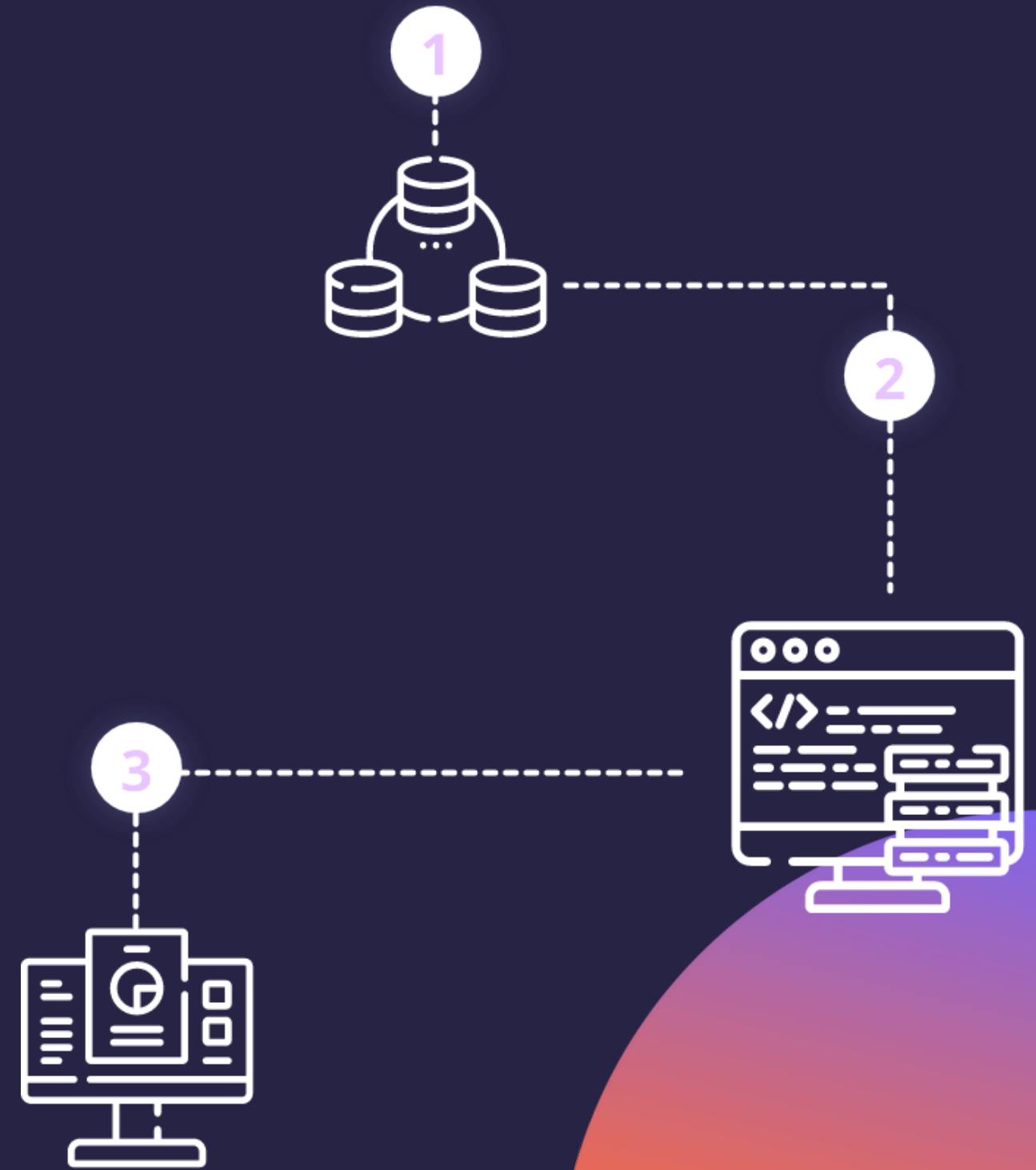# Labguru Workflow Editor

Build automatic workflows tailored to your own lab's needs

Labguru

Labguru Workflow Editor

Easily design automated workflows with selection of triggers, conditions and actionable steps, to quickly automate lab documentation routines.

The Labguru Workflow Editor add-on is an interoperable solution that allows Labguru users to automate and customize a series of actions and events that happen in their lab.

Our customers use this powerful tool for the following cases

- Process unstructured data (like users' forms or raw data files) into structed formats

- Bridge between Labguru and external sources to update newly created samples (For example- protein information from UniProt or genomic information from HGNC)

- Integrate biological/chemical/statistical analytical tools used on experimental data for immediate results

- Generate reports based on your own pre-made templates for multiple purposes

- Customize notifications and alerts that are triggered by events occurring in your Labguru account

The Challenges

Time loss – Life science companies need to process huge amounts of data – structured and unstructured.

Preparing data for analysis requires huge amounts of time.
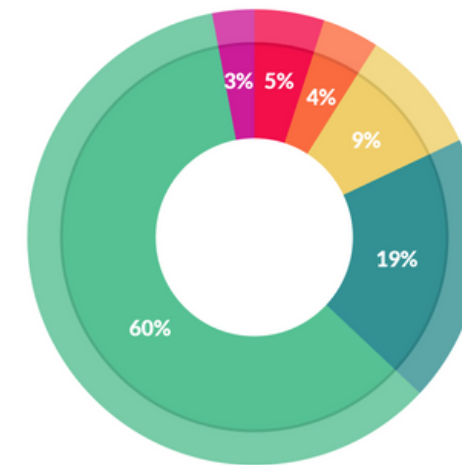
Forbes

"76% of data scientists view data preparation as the least enjoyable part of their work"

Gil Press, Forbes

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The Challenges

Human errors – Keeping your data quality and integrity in this case may be challenging, since manually handling a large amount of data can be susceptible to human errors.

Data Quality Is in Worse Shape Than Most Managers Realize

In a study involving 75 executives, only 3% found that their departments fell within the minimum acceptable range of 97 or more correct data records out of 100.

PERCENTAGE OF DEPARTMENTS

Not acceptable — Acceptable

NUMBER OF CORRECT DATA RECORDS (OUT OF 100)
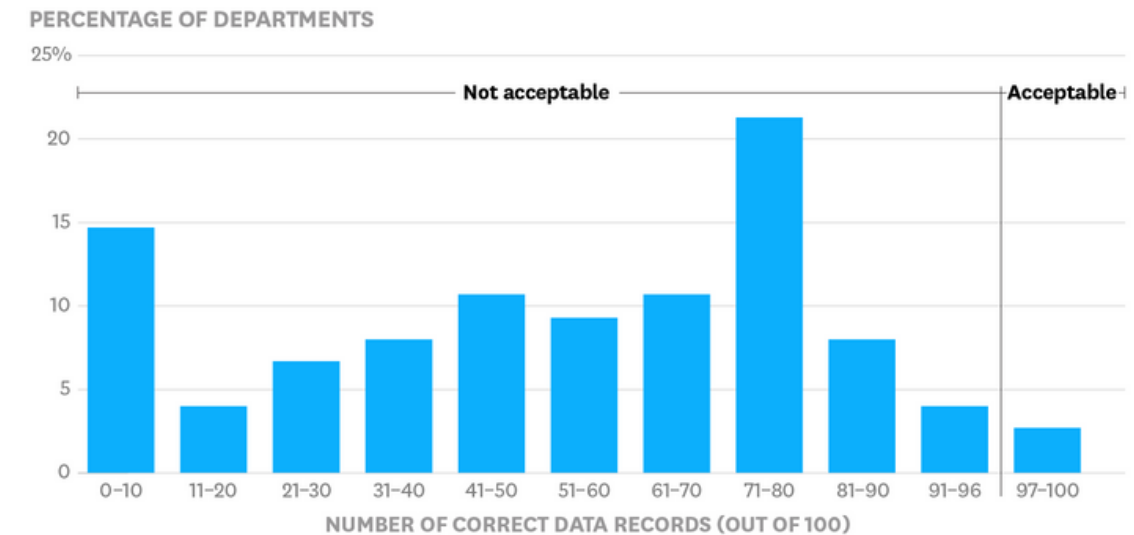
SOURCE TADHG NAGLE ET AL.

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Harvard Business Review

"Only 3% of Companies' Data Meets Basic Quality Standards"

Tadhg Nagle, Thomas C. Redman and David SammonSeptember 11, 2017

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Product overview

The Workflow Editor offers solutions for

Processes Automation

Design steps that will happen seamlessly and as a reaction to an activity done by lab members, saving the time and effort to perform those routine processes manually.

Data Analysis

Biological, chemical, informational or statistical calculations can be integrated as steps in workflows, allowing to automate analysis done on experimental data. The Workflow Editor helps bridge between the scientists who gather the results and the bioinformaticians/data-scientists who perform the analysis.

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Key Features

Design workflows by creating triggers, steps and notifications which enable to manage and streamline processes execution, results and data tailored to your lab's requirements

Setting triggers
Activity of members inside Labguru can be defined as trigger to activate a workflow. Workflows can also be set with a periodic trigger.
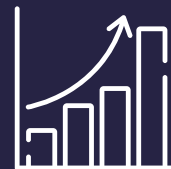
Step-by-Step
Build your workflows using predefined steps that mark the chronological progression of the flow.

Lab scripter
Personalized workflows to get to the desired outcome by adding code blocks of Python, Ruby, R or C#.

History logs
Follow your workflows history to see all previous activations and outcomes. Customize the logs to display the details important for you.

Key Benefits

- Personalize your workflows according to your exact needs

- Minimize human errors

- Reduce time spent on calculations and data manipulations by automating data analysis and documentation

- Tailored emails and Slack notifications on activities

- Automatically and instantly generate reports, based on data added to Labguru by lab members

- Helps you maintain data integrity

- Keep all your activities on one platform when integrated with Labguru as a holistic system

- Create customized history logs to show the relevant information for your lab, that you can monitor and supervise

- Comply with CFR21part11/ GXP and improve data integrity by removing manual data processing steps

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Use Cases

Drug Discovery company

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Case Description

Merge multiple data files into one spreadsheet, analyze the data and plot it.

Pain point

Cell Growth experiments produce multiple data files, based on measurements done over many days, that need to be merged into a single excel spreadsheet in order to plot a linear curve graph

Solution

A workflow that is automatically activated when the last Excel file is added (by recognizing its name) and runs a Python script to calculate each time point average and standard deviation values. The workflow then continues and plot a graph for all the sample. The outcome files (an Excel with average values and an image of the graph) are then uploaded to Labguru and attached to the results section of the same experiment where the data files were added.

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Use Cases

Large service lab company

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Case Description

Generating projects final reports.

Pain point

The project final report includes information from multiple sources (like forms or images) that need to be gathered together, rearranged as a report and sent to the customer.

Solution

The Workflow implemented is triggered when the last experiment in the project is signed and automatically creates a new empty entry in the Reports module. The workflow then collects information from several form elements and embed it into the template that is saved as a document in Labguru and adds it to the newly created report. Images that were added to the results sections are copied and added into a designated section of the report. Lastly, a pdf version of the report is created and sent to the project manager for review before sending it to the customer.

Use Cases

Biotech Startup

Case Description

Get protein information from UniProt database.

Pain point

For each new protein entry registered into the inventory, the users need to populate many custom fields with information from the protein open database - UniProt.

Solution

When a new protein entry is created in Labguru inventory module, a workflow is activated and finds the relevant UniProt entry (by the protein's name) and automatically updates the protein entry in Labguru with it's sequence, structural information, genomic associations and cellular localization.

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