Recent Developments in Galaxy

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Galaxy Community
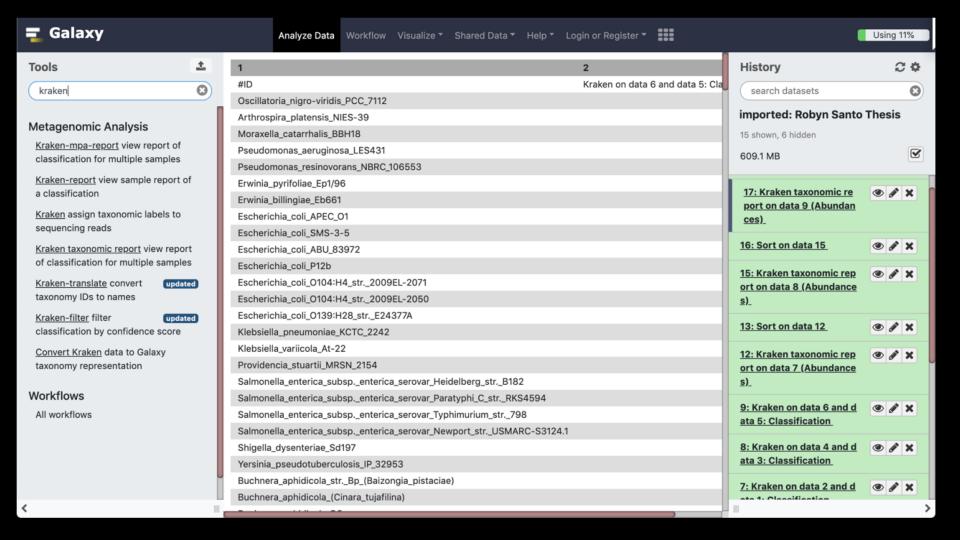
#usegalaxy @galaxyproject

What is Galaxy? Keith Bradnam's definition

"A web-based platform that provides a simplified interface to many popular bioinformatics tools."

From

"13 Questions You May Have About Galaxy"

http://bit.ly/13questions

Tools

kraken

Metagenomic Analysis

Kraken-mpa-report view report of classification for multiple samples

Kraken-report view sample report of a classification

Kraken assign taxonomic labels to sequencing reads

Kraken taxonomic report view report of classification for multiple samples

Kraken-translate convert `updated` taxonomy IDs to names

Kraken-filter filter `updated` classification by confidence score

Convert Kraken data to Galaxy taxonomy representation

Workflows

All workflows

1	2
#ID	Kraken on data 6 and data 5: Cla
Oscillatoria_nigro-viridis_PCC_7112	
Arthrospira_platensis_NIES-39	
Moraxella_catarrhalis_BBH18	
Pseudomonas_aeruginosa_LES431	
Pseudomonas_resinovorans_NBRC_106553	
Erwinia_pyrifoliae_Ep1/96	
Erwinia_billingiae_Eb661	
Escherichia_coli_APEC_O1	
Escherichia_coli_SMS-3-5	
Escherichia_coli_ABU_83972	
Escherichia_coli_P12b	
Escherichia_coli_O104:H4_str._2009EL-2071	
Escherichia_coli_O104:H4_str._2009EL-2050	
Escherichia_coli_O139:H28_str._E24377A	
Klebsiella_pneumoniae_KCTC_2242	
Klebsiella_variicola_At-22	
Providencia_stuartii_MRSN_2154	
Salmonella_enterica_subsp._enterica_serovar_Heidelberg_str._B182	
Salmonella_enterica_subsp._enterica_serovar_Paratyphi_C_str._RKS4594	
Salmonella_enterica_subsp._enterica_serovar_Typhimurium_str._798	
Salmonella_enterica_subsp._enterica_serovar_Newport_str._USMARC-S3124.1	
Shigella_dysenteriae_Sd197	
Yersinia_pseudotuberculosis_IP_32953	
Buchnera_aphidicola_str._Bp_(Baizongia_pistaciae)	
Buchnera_aphidicola_(Cinara_tujafilina)	

History

search datasets

imported: Robyn Santo Thesis

15 shown, 6 hidden

609.1 MB

17: Kraken taxonomic report on data 9 (Abundances)

16: Sort on data 15

15: Kraken taxonomic report on data 8 (Abundances)

13: Sort on data 12

12: Kraken taxonomic report on data 7 (Abundances)

9: Kraken on data 6 and data 5: Classification

8: Kraken on data 4 and data 3: Classification

7: Kraken on data 2 and data 1: Classification

Interface

- *Rule-based loader* to create *dataset collections* at load time
- Dataset *name tags* preserved throughout analysis
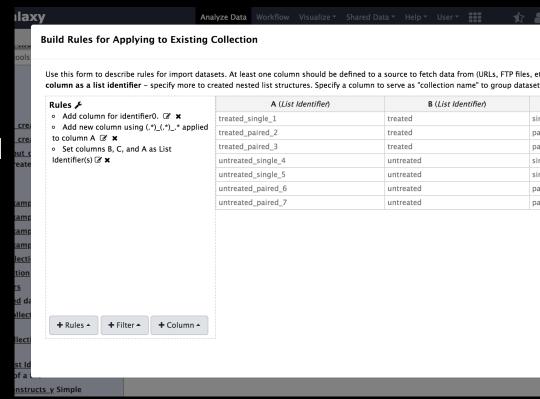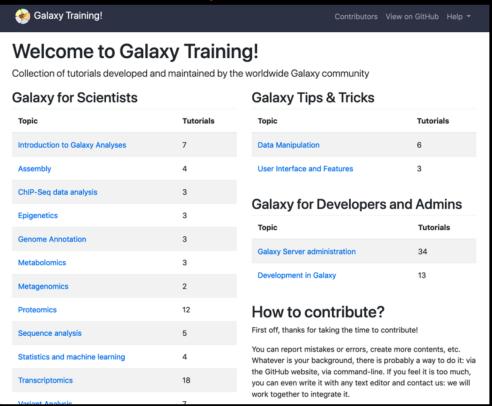- Coming soon: non-linear views of your current analysis

Image: John Chilton, Helena Rasche
from Collections: Rule Based Uploader Tutorial

Training Library

- *Galaxy Training Network Library*
- **Hands-on tutorials, slides, datasets (in Zenodo), Docker images, workflows, …**
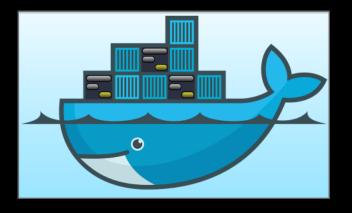- **Galaxy Admin training added this year**

https://training.galaxyproject.org/

Containerization, Conda & Clouds

Containerization greatly simplifies
- **wrapping tools for Galaxy**
- **distributing Galaxy instances**
- **running Galaxy on cloud infrastructures**
- **AWS, Google Cloud, OpenStack supported**
- **Azure support coming**

UseGalaxy.* & Platforms Directory

- **UseGalaxy.org** **Project run server, hosted at TACC**
- **UseGalaxy.eu** **European server, hosted by U Freiburg**
- **UseGalaxy.org.au** **Australian server, hosted by U Queensland**

- **galaxyproject.org/use/** **Links to over 150 platforms for using Galaxy** *right now*

Thanks

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Galaxy Project

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