OP01: Galaxy Framework Exordium
&
HS03: Visualization of RNA-Seq with Galaxy framework

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CAiSMD

Galaxy Training Network

TMS Foundation
bharatyuva.org
indiayouth.info

Overview

- Oral presentation
  - Introduction to Galaxy
  - Galaxy Training (training.galaxyproject.org)

- Hands-on presentation
  - An example Workflow which shows about visualization of RNA-Seq results

Contribute to community

- Global community
  - Public instances
    - usegalaxy.org
    - usegalaxy.eu
    - Usegalaxy.org.au
- Domain specific
  - Cheminformatics
- Gitter channels
- Github Project
- Create an account on usegalaxy.eu or usegalaxy.org

- Regional Galaxy groups
  - Africa: https://africa.usegalaxy.eu/
  - India:
    - usegalaxy.in
    - TMS Foundation
      - Become Member (https://forms.gle/rZkmk5tWP4XG36fg8)
- Gmentee/Gmentor program
  - https://galaxy-mentor-network.netlify.app/

Galaxy global training

GTN Tapas

bit.ly/gtntapas

With the support of the European Union

Free Global Galaxy Training!

March 14-18, 2022

Covid, RNA-Seq, Single Cell, Proteomics, ML, Annotation, Climate, Ecology & More!

1800+ Registered

Thanks to Fidele & Prof.Ludwig-Müller

Thanks for attention

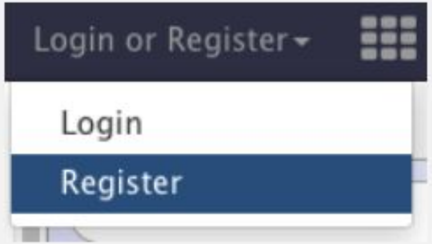
&

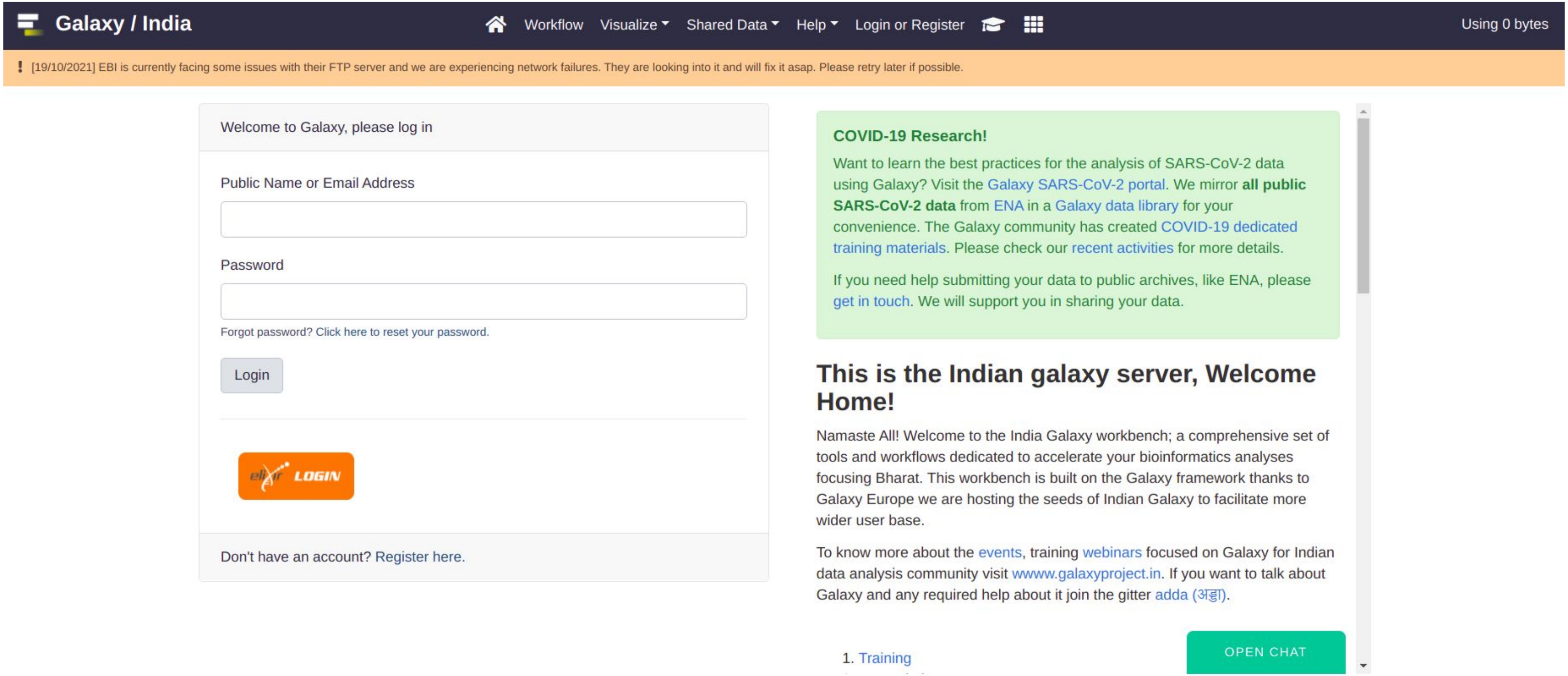
Happy to take questions?

Setting up your galaxy account

Setting up Galaxy account

Go to the "Login or Register" link at the top of Galaxy interface and choose "Register" (unless of course you already have an account):





! [19/10/2021] EBI is currently facing some issues with their FTP server and we are experiencing network failures. They are looking into it and will fix it asap. Please retry later if possible.

Welcome to Galaxy, please log in

Public Name or Email Address

Password

Forgot password? Click here to reset your password.

Don't have an account? Register here.

COVID-19 Research!

Want to learn the best practices for the analysis of SARS-CoV-2 data using Galaxy? Visit the Galaxy SARS-CoV-2 portal. We mirror **all public SARS-CoV-2 data** from ENA in a Galaxy data library for your convenience. The Galaxy community has created COVID-19 dedicated training materials. Please check our recent activities for more details.

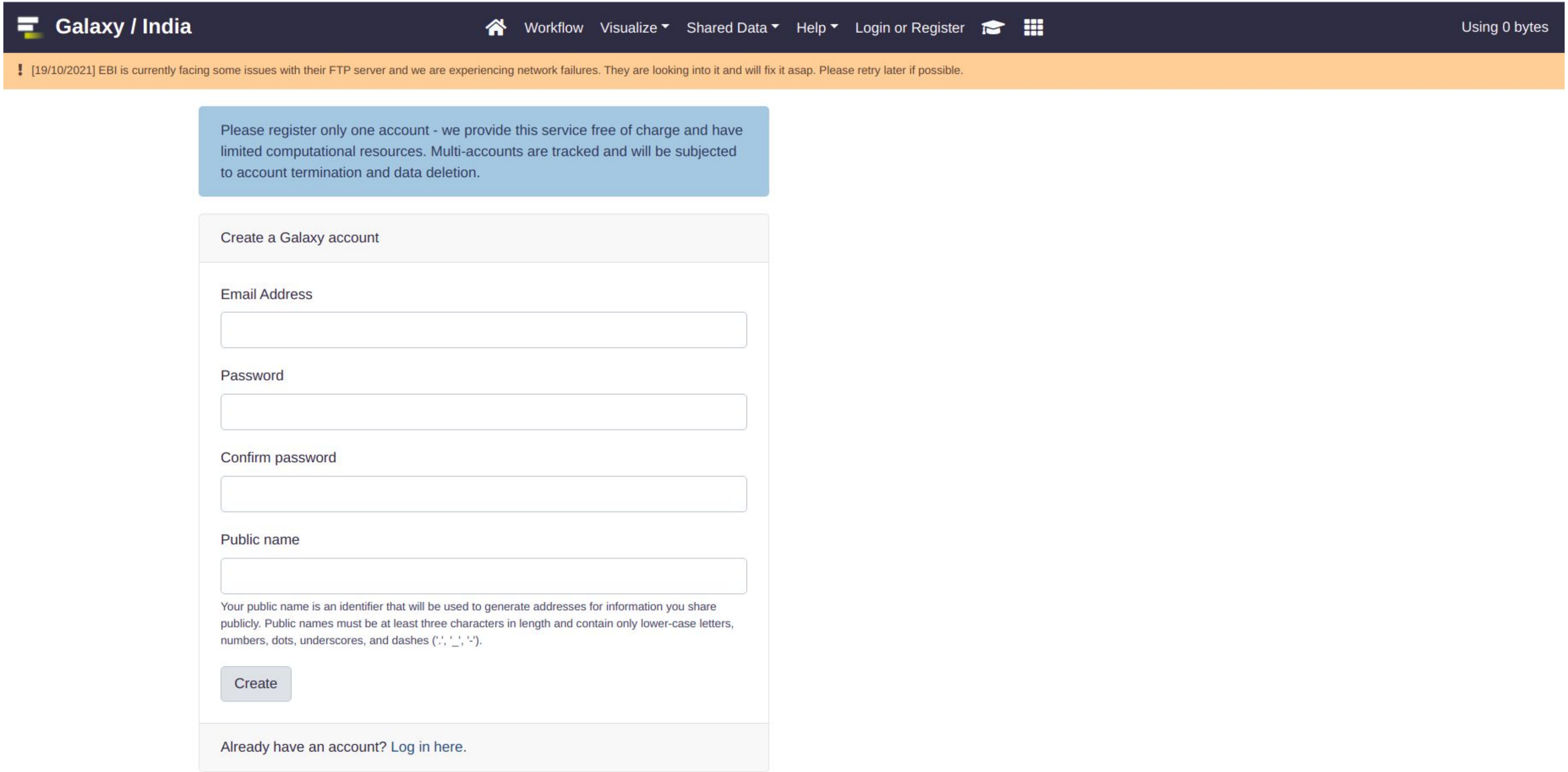
If you need help submitting your data to public archives, like ENA, please get in touch. We will support you in sharing your data.

This is the Indian galaxy server, Welcome Home!

Namaste All! Welcome to the India Galaxy workbench; a comprehensive set of tools and workflows dedicated to accelerate your bioinformatics analyses focusing Bharat. This workbench is built on the Galaxy framework thanks to Galaxy Europe we are hosting the seeds of Indian Galaxy to facilitate more wider user base.

To know more about the events, training webinars focused on Galaxy for Indian data analysis community visit wwww.galaxyproject.in. If you want to talk about Galaxy and any required help about it join the gitter adda (अड्डा).

1. Training



! [19/10/2021] EBI is currently facing some issues with their FTP server and we are experiencing network failures. They are looking into it and will fix it asap. Please retry later if possible.

Please register only one account - we provide this service free of charge and have limited computational resources. Multi-accounts are tracked and will be subjected to account termination and data deletion.

Create a Galaxy account

Email Address

Password

Confirm password

Public name

Your public name is an identifier that will be used to generate addresses for information you share publicly. Public names must be at least three characters in length and contain only lower-case letters, numbers, dots, underscores, and dashes ('.', '_', '-').

Already have an account? Log in here.

How to visualize the expression of the genes across the samples?

Heatmaps

- Commonly used to visualize differentially expressed genes
- Heatmap2 tool in Galaxy
- Uses the heatmap.2 function from the R gplots package
- Study from Fu et al. (2015)

Dataset

- Normalized Counts file
- Differentially expressed results file
- Genes of interest

Let's go for demonstration!

Thank You

Any question?

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Extra Slides