Learning Objectives

❖ Learn what a "shell" is and become comfortable with the command-line interface

- Find your way around a filesystem using written commands

- Work with small and large data files

- Become more efficient when performing repetitive tasks

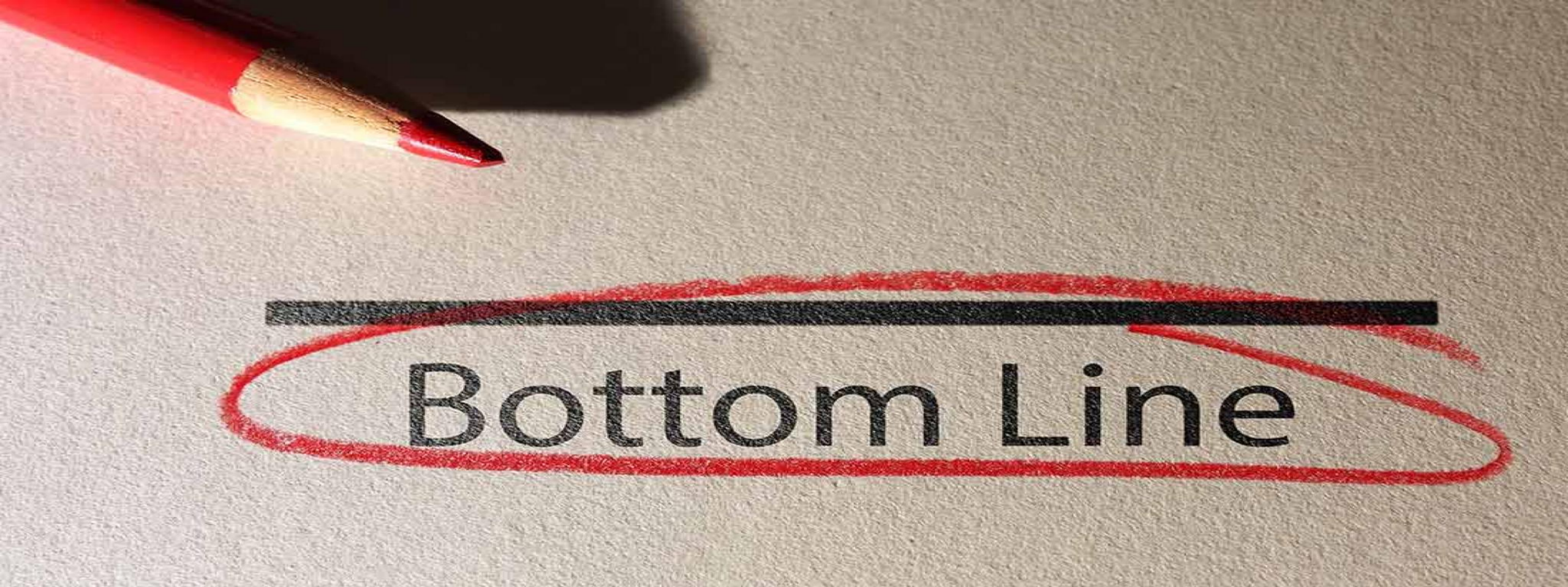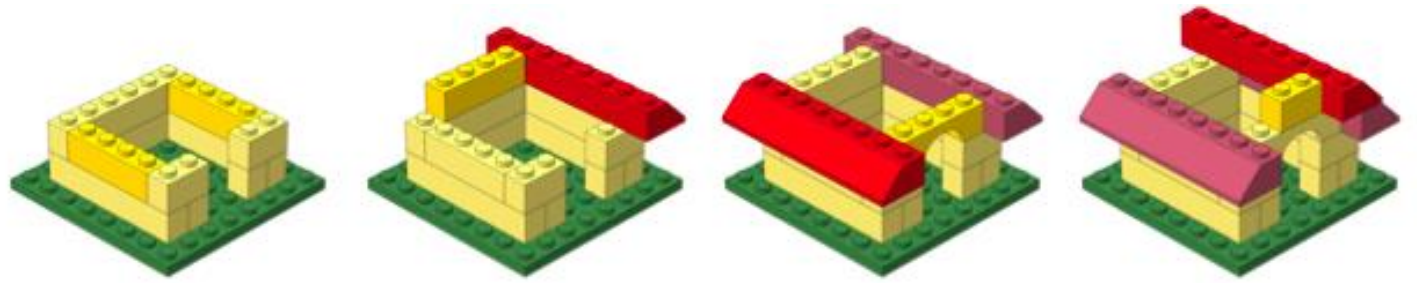❖ Understand what a computational cluster is and why we need it

If you plan to process raw high throughput sequencing data yourself, you will need to learn shell.

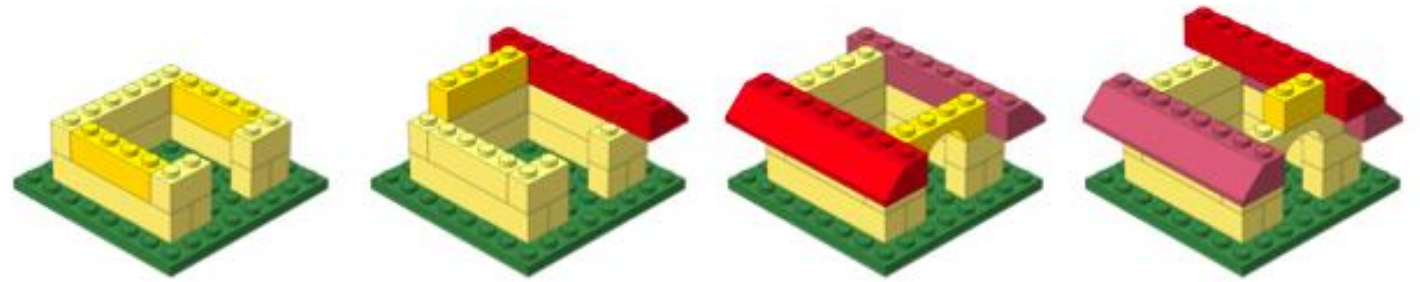# Exit survey

https://tinyurl.com/hbc-shell-exit

Keep building!

- ❖ Upcoming HBC advanced shell-based workshops:

  - ❖ Introduction to Variant Calling

    - ❖ September 17th , 20th, 24th and 27th   (in-person)

    - ❖ Using paired tumor-normal samples to analyze variants

  - ❖ Introduction to R

    - ❖ October 8th, 11th, 15th and 18th

    - ❖ Basics of programming and figure creation in R

Keep building!

Topic	Pre-requisites	Date/Time	Time	Registration
RShiny	R basics	9/18/24	1 – 4pm	Register!

Get an O2 account!

Search IT services and kn[ ] 🔍

O2 Cluster Account

Description ⌄

What does it do?

Get an account on O2, the HMS High Performance Compute cluster

Available To ⌄

Who is eligible?

Any HMS or HMS-affiliated researcher who has an HMS eCommons account.

Cost ⌄

What does it cost?

There is no cost to labs whose PI has a primary or secondary faculty appointment in an HMS Quad department.

If the PI of your lab does not have a primary or secondary faculty appointment in an HMS Quad department, cluster usage will be charged for beginning later in 2021. Please see the following page for current details about rates: https://it.hms.harvard.edu/rc/core/rates.

Support ⌄

Please fill out the online help request form, or email rchelp@hms.harvard.edu.

How to Access ⌄

How do I get it?

Two-factor authentication is required to request an account on O2, as well as for O2 logins once your account is created. Harvard University uses a mobile app called Duo that makes the process quick and easy. Even if you already use Duo for HarvardKey, you will still need to setup a Duo profile for HMS.
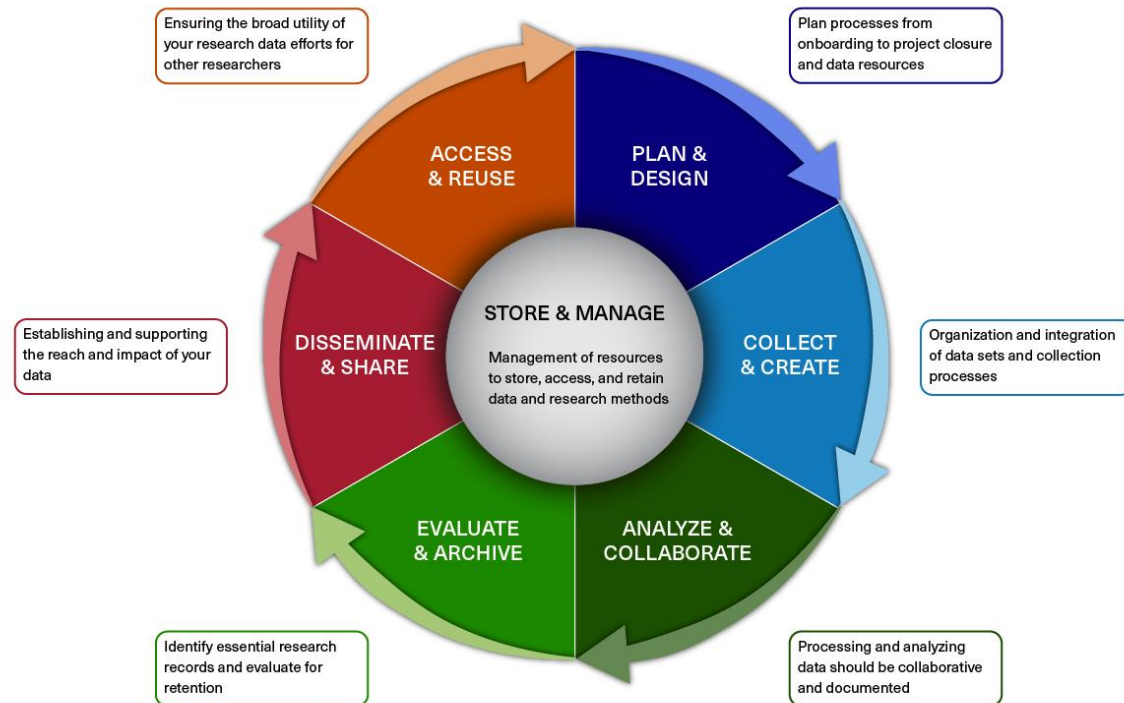
- Setup HMS two-factor Authentication (HMS Duo Mobile)
- Reactivate or Reconnect HMS two-factor Authentication (HMS Duo Mobile)

Once you have Duo set up, Click the "Get Service" link to login and complete the request form.

Get this service | Learn more

Don't see what you're looking for?

HMS IT RC O2- Confluence

Research Data Management (RDM)

BIOMEDICAL RESEARCH DATA LIFECYCLE

Ensuring the broad utility of your research data efforts for other researchers

Plan processes from onboarding to project closure and data resources

ACCESS & REUSE

PLAN & DESIGN

STORE & MANAGE

Management of resources to store, access, and retain data and research methods

Establishing and supporting the reach and impact of your data

DISSEMINATE & SHARE

COLLECT & CREATE

Organization and integration of data sets and collection processes

EVALUATE & ARCHIVE

ANALYZE & COLLABORATE

Identify essential research records and evaluate for retention

Processing and analyzing data should be collaborative and documented

Fall 2024 Data Lifecycle Training

Plan & Design

September 24 👥
Managing Research Data Efficiently

September 26 🖥️
Project and Lab Onboarding

October 31 👥
Data Horror Stories: Avoid the Nightmare

November 19 👥
Writing a Data Management and Sharing Plan

Collect & Analyze

September 19 🖥️
Intro to MATLAB

October 10 🖥️
Research Computing: Intro to Python

October 16 🖥️
scRNA pre-processing

November 21 🖥️
Research Computing: Intro to O2

December 5 🖥️
RCBio: easy and quick HPC pipeline builder & runner

Store & Evaluate

October 22 🖥️
Introduction to the General Records Schedule

October 24 🖥️
Computing Strategies and Resources

November 22 🖥️
Managing Paper Records: Off-Site Records Storage

December 17 🖥️
Managing Electronic Records: Shared Drives and Emails

Share & Publish

September 18 🖥️
Interact with your data using RShiny

November 14 🖥️
Principles of Finding and Citing Data

November 20 🖥️
GitHub Part I

December 3 👥
Research Management: Tools for Open Science

December 12 🖥️
Data Sharing in Repositories

👥 In-person   🖥️ Virtual

LONGWOOD
RESEARCH DATA MANAGEMENT

https://datamanagement.hms.harvard.edu/about/news-events/rdmwg-calendar

Better RDM practice benefits you

- ❖ **HMS Data Management LMA**

  - ❖ **Webpage:** https://datamanagement.hms.harvard.edu

  - ❖ **Sign up for quarterly email updates**

- ❖ **Harvard-wide Research data Management**

  - ❖ https://researchdatamanagement.harvard.edu/

Join us for HBC Community Breakfast!

❖ **An opportunity to get to know others in the community**

❖ **Free food and beverages**

❖ **Great conversations**

More Info:

http://bioinformatics.sph.harvard.edu/breakfast/

Thanks!

- ❖ Kathleen Chappell and Andy Bergman from HMS-RC

- ❖ Data Carpentry

Contact Us

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❖ *O2 (HMS-RC):* rchelp@hms.harvard.edu