

Snakemake ‘bring-your-own-code’ workshop

Verena Kutschera

NBIS

2024-05-27



Your teachers



John Sundh



Marcel Martin



Per Unneberg



Verena Kutschera



Welcome lecture

SciLifeLab - Science for Life Laboratory

- Institution for the advancement of molecular biosciences in Sweden
- **Research infrastructure services** and research groups
- Located at a number of universities across Sweden



NBIS - National Bioinformatics Infrastructure Sweden

- SciLifeLab's **Bioinformatics platform**
- Swedish ELIXIR node (the European infrastructure for biological information)
- Provides bioinformatics and data science **support to the Swedish life science research community**
- ~120 experts in different fields
- Distributed across six universities in Sweden



NBIS - National Bioinformatics Infrastructure Sweden

- **Bioinformatics support**, incl. bioimaging and medical imaging
- Software development
- Data management & data sharing guidance
- Compute resources
- **Training**: courses & workshops, advisory program for PhD students



Snakemake BYOC workshop



Welcome lecture



Schedule

Monday, 27 May

| Time | Topic |
|---------------|--|
| 09.00 - 09.20 | Welcome and introduction |
| 09.20 - 10.20 | Lectures <ul style="list-style-type: none">- Anatomy of a Snakefile- Scatter-gather solutions- Example workflow |
| 10.20 - 12.50 | Breakout rooms (incl. coffee break) <ul style="list-style-type: none">- Ice-breaker session- Feedback session- Coding session |
| 12.50 - 13.00 | Wrap-up day 1 |



Breakout rooms

- During most of the workshop, you will be in breakout rooms
- We have placed you in **small groups** based on your replies in the application form
- Each group has their **own teacher**



Feedback session (today)

- You will be in a **breakout room** with your group (incl. your teacher)
- Each of you **presents** their project for the workshop
- You have **30 minutes**, incl. questions and feedback
- This will hopefully help you to find a **starting point** to work on your pipeline



Coding sessions (every day)

- You will be in a **breakout room** with your group (incl. your teacher)
- You will each **work individually** on your project
- You can ask your group whenever you need help or feedback
- Your teacher will try to help, but all participants are encouraged to **help each other**



Schedule

Tuesday, 28 May

| Time | Topic |
|---------------|---|
| 09.00 - 10.00 | Lectures - Using conda, containers and env-modules in Snakemake |
| | - Running Snakemake locally & on a cluster |
| 10.00 - 12.50 | Breakout rooms (incl. coffee break) - Coding session |
| 12.50 - 13.00 | Wrap-up day 2 |



Schedule

Wednesday, 29 May

| Time | Topic |
|---------------|--|
| 09.00 - 10.00 | Lectures |
| | - Best practices for Snakemake workflows |
| 10.00 - 12.50 | Breakout rooms (incl. coffee break) |
| | - Coding session |
| 12.50 - 13.00 | Wrap-up day 3 |



Zoom etiquette

- Please keep your webcam on
- **Lectures**
 - Please stay muted
 - If you have a question, unmute and speak up
- **Breakout rooms**
 - Feel free to stay unmuted, unless there is a lot of background noise



Slack

- Workspace nbissnakemakebyoc.slack.com for communication during the workshop
- #general for questions or information concerning everyone
- Separate channels to communicate within each group, e.g. to share code snippets and links



Workshop resources

- We will share the **lecture slides** with you
- You will get a workshop **certificate**
- We kindly ask you to fill out a **feedback form** at the end of the workshop



Breakout room groups

Whenever we open the breakout rooms, please move yourselves into your room:

Breakout room 1: Per

Johan

Daniel

Xinmeng

Breakout room 3: Marcel

Abu Bakar

Atul

Veronica

Breakout room 2: Verena

Tetsuichi

Aivars

Maike

Breakout room 4: John

Ionut Sebastian

Mateus

Sybil

