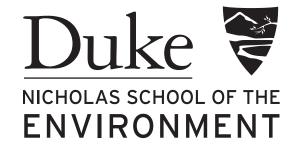
TEAM PROJECT SETUP

Hydrologic Data Analysis Fall 2019

Kateri Salk



HDA TEAM PROJECTS

11/25

Choose a research topic related to aquatic science that can be analyzed with open datasets

10/25	initial proposal and analysis plan (end of class)
11/6	Brainstorming sessions with other teams
11/13	Report draft due for peer review (beginning of class)
11/22	Final report

Final presentation

Initial proposal and analysis plan (and of alass)

GROUPS VS. TEAMS

Group: collection of individuals with something in common who coordinate individual efforts

Team: collection of individuals who share a purpose and goals

- Interdependence
- Effective communication and collaboration
- Outcome is greater than sum of individual efforts

Forming → Storming → Norming → Performing

TEAM CONTRACTS

Get together with your team and review the team contract. Discuss your approach and agree on how to fill out the sections that require filling in. Once you have come to consensus, everyone should sign and date your contract.

TOPIC CHOICE

- Scope: 1 month, 4 people
- Generating questions and hypotheses
 - Project should address a series of interrelated questions and hypotheses
 - Yes/No questions are less interesting than open-ended questions
 - Hypothesis ≠ Prediction
 - Questions → Hypotheses → Tasks

DATASET CHOICE

- USGS and Water Quality Portal (dataRetrieval package)
- LAGOS (LAGOSNE package)
- **StreamPULSE** (StreamPULSE package)
- **CUAHSI**: HydroClient and HydroShare
 - http://data.cuahsi.org/
 - https://www.hydroshare.org/search/
- GLEON: http://gleon.org/data
- LTER Network: https://portal.lternet.edu/nis/home.jsp
- Others?

PROJECT MANAGEMENT: GITHUB REPOSITORY STRUCTURE

1 Master repository,

- Everyone commits, pushes, and pulls directly
- Upside: works well for teams with intersecting tasks
- Downside: all files can be edited by anyone at any time

• 1 Master repository + developer branch(es)

- Everyone works on progress in the developer branch(es)
- Team members submit pull requests to the Master repository with "final" versions
- Upside: works well for tasks that branch off from the master repository
- Downside: Developer branches are ahead of the Master and may diverge from each other (if multiple)

• 1 Master repository + personal forks

- Everyone forks the master repository, works on progress in individual forks
- Team members submit pull requests to the Master repository with "final" versions
- Upside: works well for tasks divided among team members, with a desire for oversight into what gets implemented into the Master.
- Downside: Forks are ahead of the Master and may diverge from each other (if multiple)

https://github.community/t5/How-to-use-Git-and-GitHub/Branch-VS-Fork/td-p/10619

BRAINSTORMING

Use the rest of today to brainstorm research topic ideas and to start forming your Proposal and Analysis Plan.

Proposal and Analysis plan due at the end of class on Friday (10/25)