2022-11-14

Step By Step Installation Illustration

KNIME GEOSPATIAL ANALYTICS

Lingbo Liu
lingboliu@fas.harvard.edu

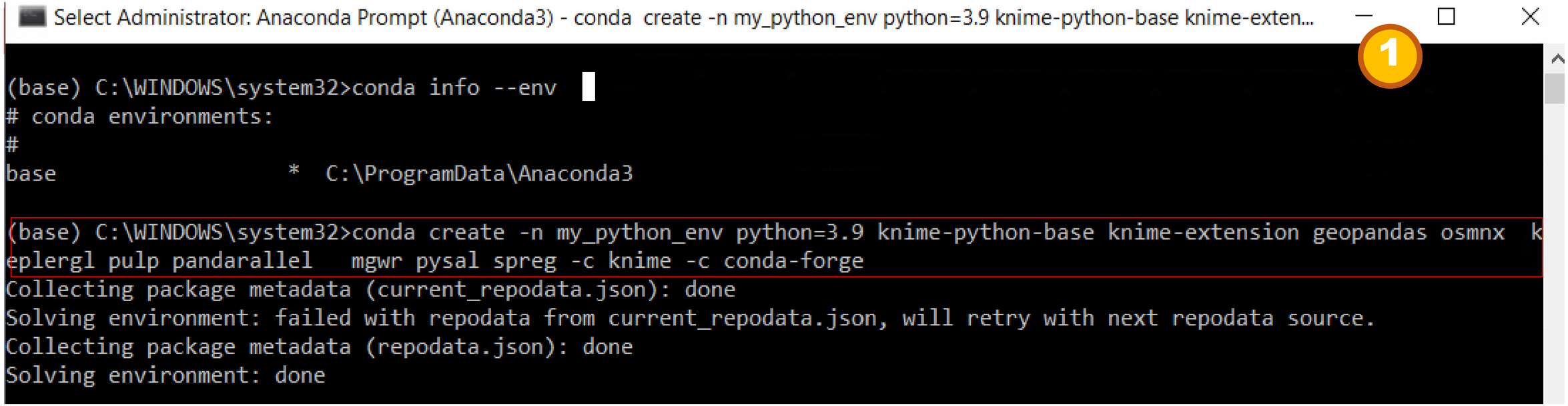
Center for Geographic Analysis
Harvard University

Open for Innovation
KNIME

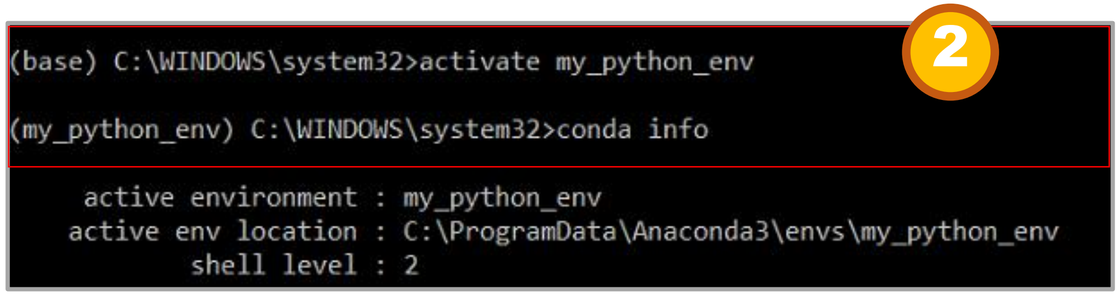
Install New Python Environment

Download Anaconda and install > Anaconda Prompt > Run as Administrator

1 Run *conda info -- env* to check the environment
Run *conda create -n my_python_env python=3.9 knime-python-base knime-extension geopandas osmnx keplergl pulp pandarallel mgwr pysal spreg -c knime -c conda-forge*
To install the new Python environment



2 Run *activate my_python_env* to enter the new Python environment
Run *pip install pyDataverse*
Run *conda info*



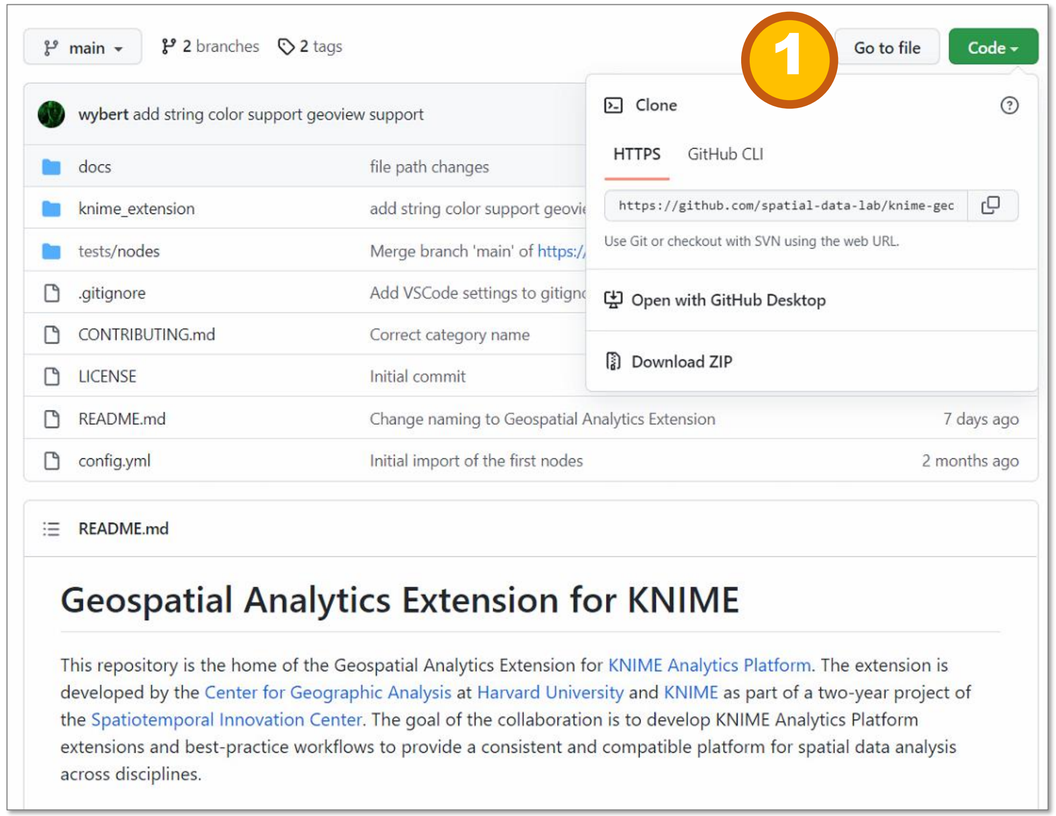
Download Extension in GitHub

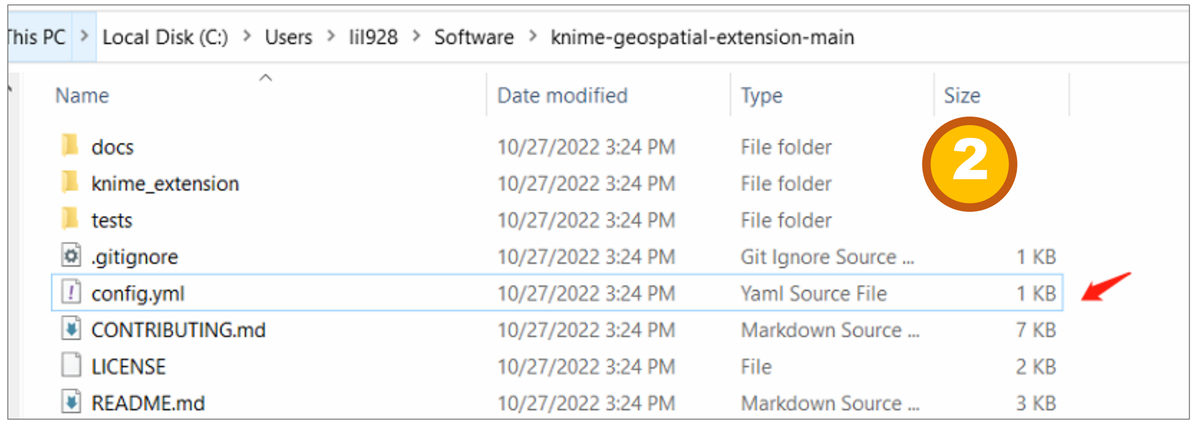
Download Zip package from GitHub

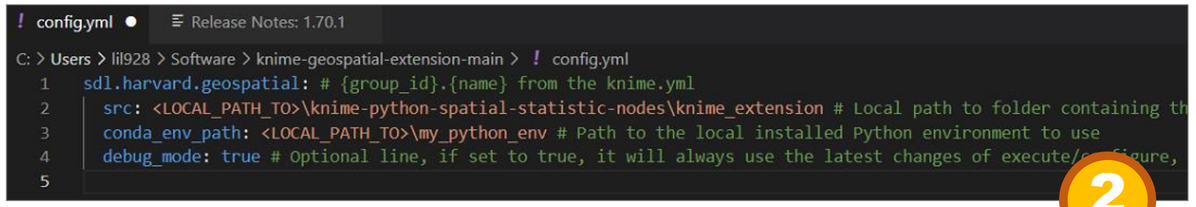
https://github.com/spatial-data-lab/knime-geospatial-extension

1 Click *Code* > *Download ZIP*

2 Unzip the ZIP file to your local folder
Open *config.yml* with Notepad(or VS code) revise the path of *src* and *conda_env*, set *debug_mode* as *false*







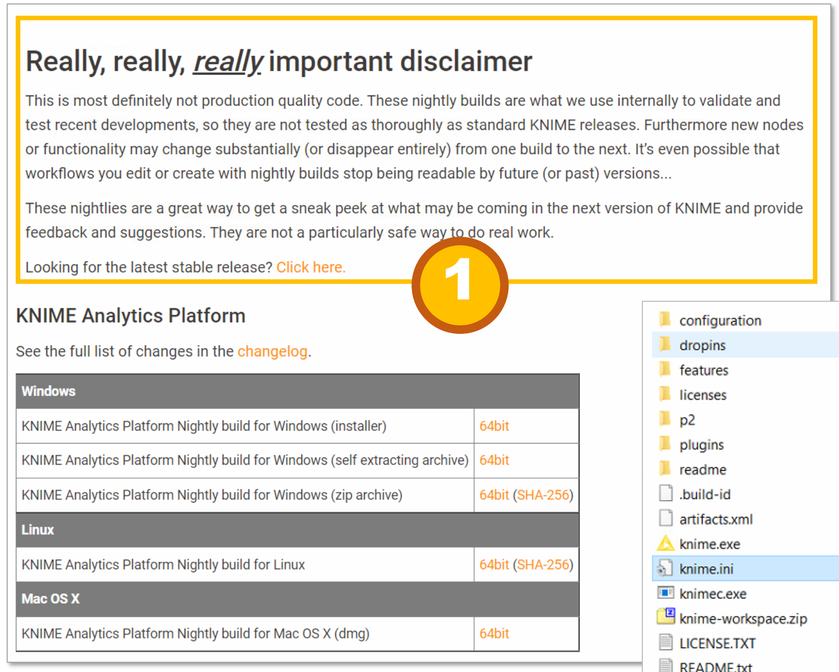

```
sdl.harvard.geospatial: # {group_id}.{name} from the knime.yml
  src: C:\Users\lil928\Software\knime-geospatial-extension-main\knime_extension
  conda_env_path: C:\ProgramData\Anaconda3\envs\my_python_env
  debug_mode: false
```

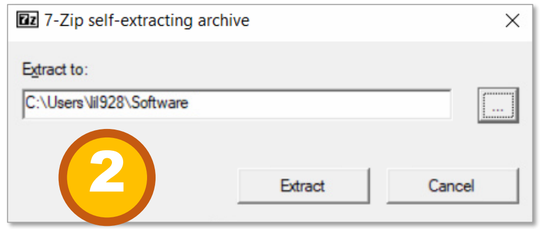
Download Nightly Build

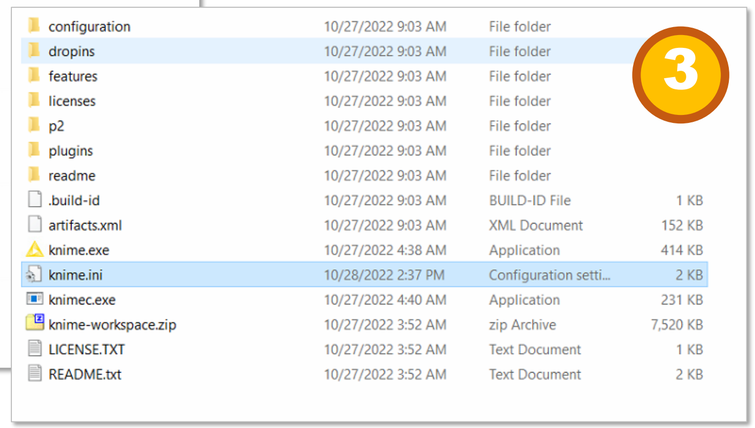
Download KNIME Nightly Build

https://www.knime.com/nightly-build-downloads

1 Download suitable or favorite file , e.g., *self extracting archive* for Windows
2 Unzip the self extracting archive
3 Edit knime.ini with Notepad
--revise *Xmx2048m* to *Xmx8g* (or any possible Gigabytes for memory limitation)
--add path to the file *config.yml* in the unzipped folder of knime-geospatial-extension







-Dknime.python.extension.config=C:\Users\lil928\Software\knime-geospatial-extension-main\config.yml

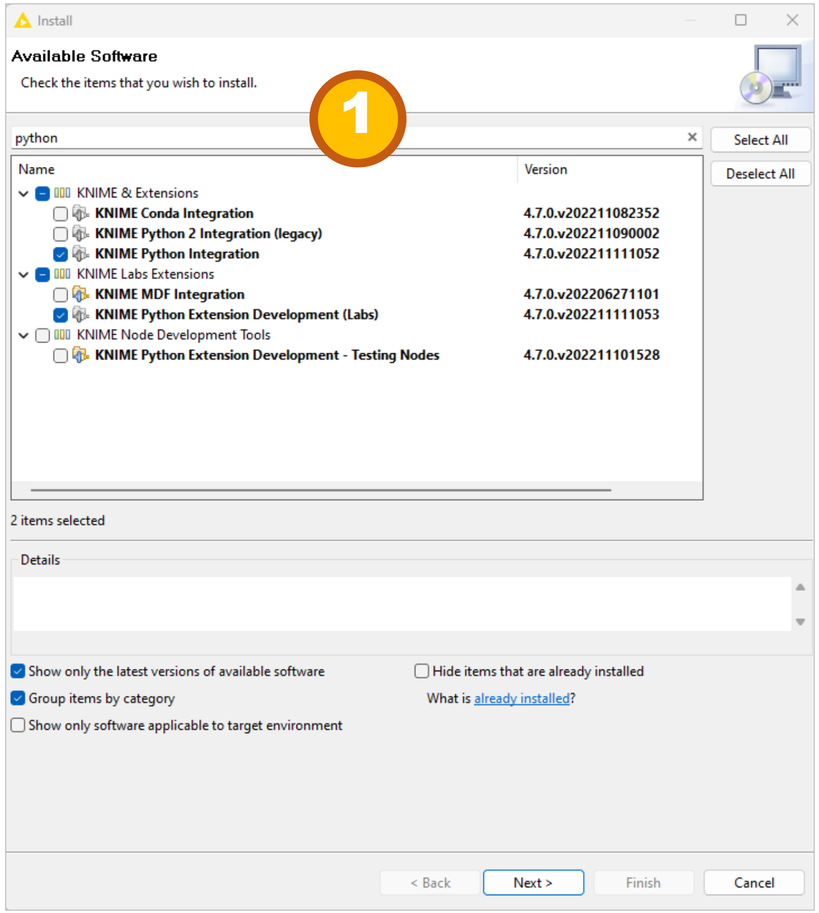
Install Python and Geospatial extension

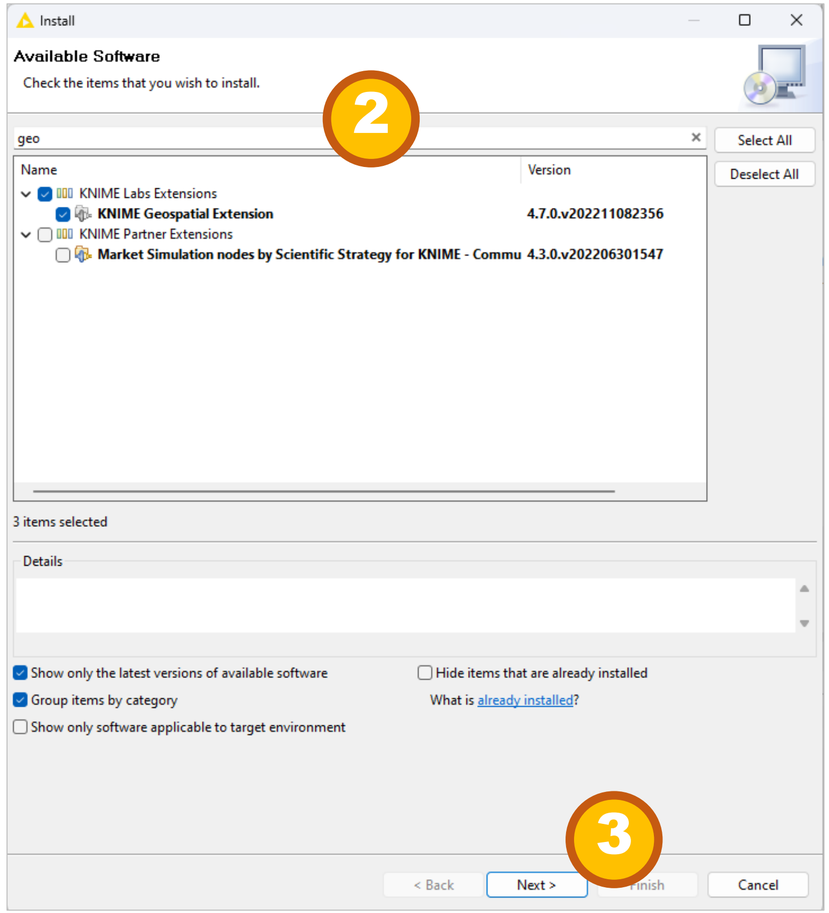
KNIME > install KNIME extensions

1 Search *python* > check
KNIME Python Extension Development(Labs)
KNIME Python Integration

2 Search *geo*> check
KNIME Geospatial Extension

3 Click Next >… > restart KNIME





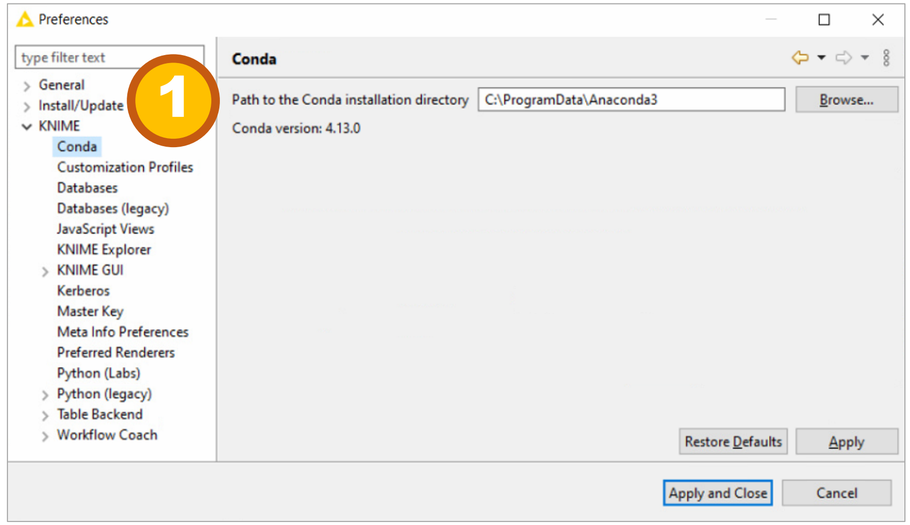
Configure KNIME Python Environment

KNIME > File > Preference

1 Go *KNIME* > *Conda*, use Browse to specify the Conda installation directory
2 Go *KNIME* > *Python,* specify the Conda environment for Python3(Default)

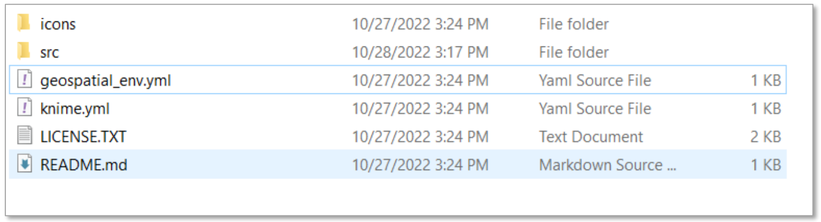
3 Click Apply and Close

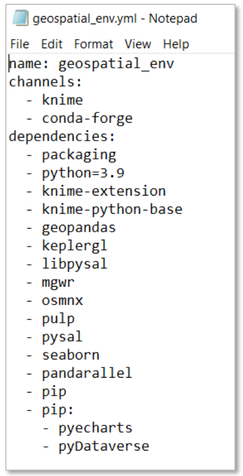
4 Restart KNIME, the Geospatial Extension should display in the Node repository

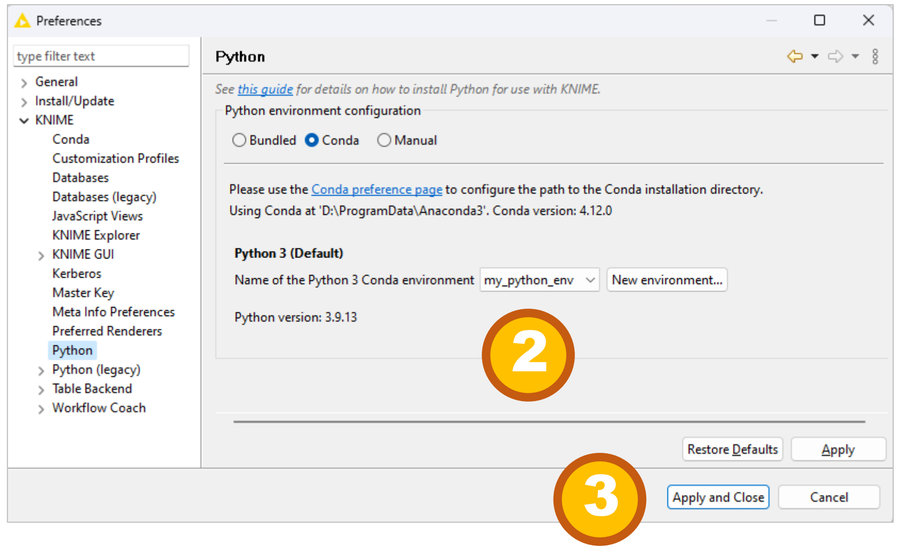


If not displaying the extension and throw out the error in the console
Failed to parse Python node extension at path ' … '
Open the *geospatial_env.yml*, check the package availability in your Python environment

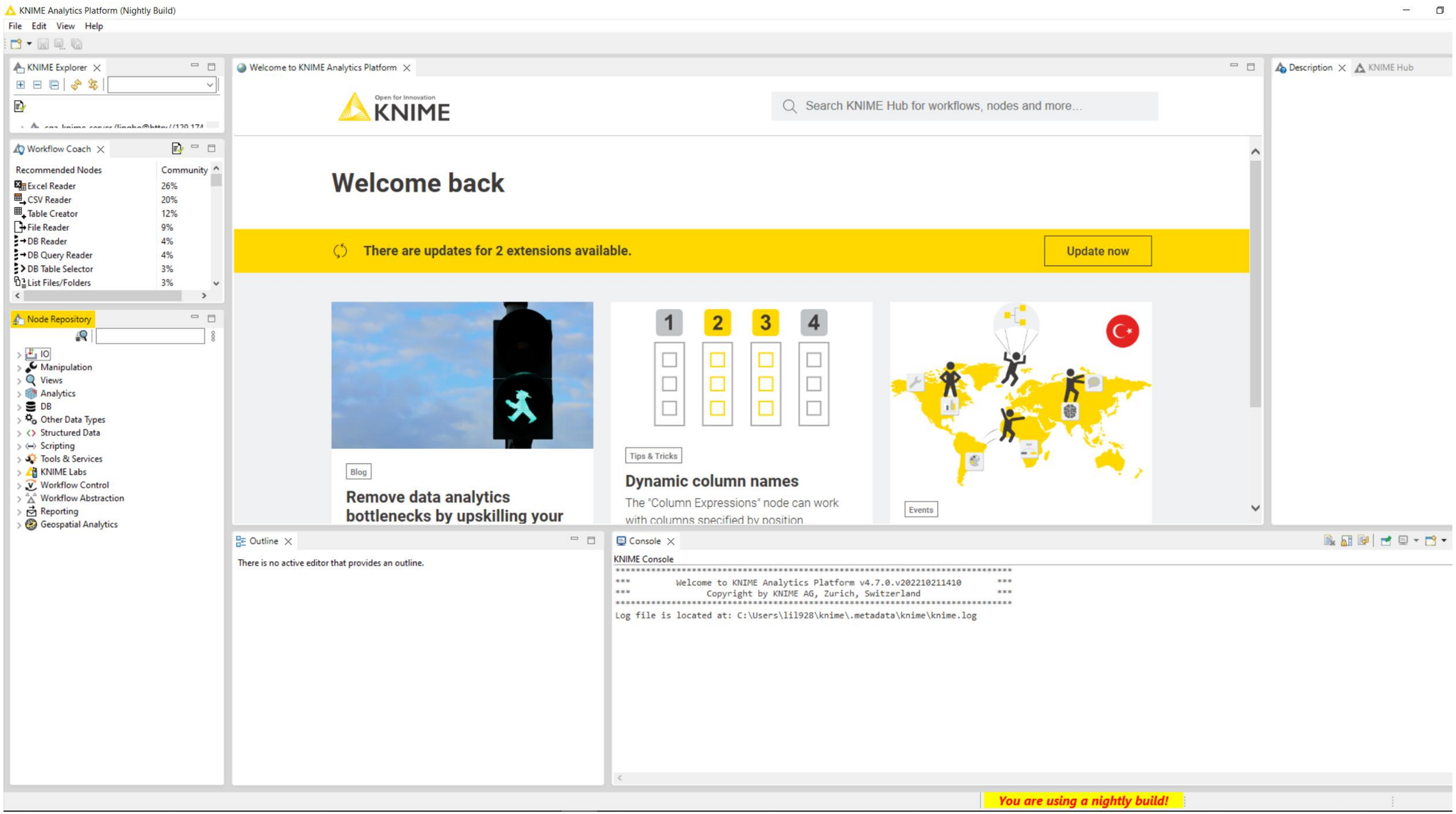
```
Log file is located at: C:\Users\lil928\knime\.metadata\knime\knime.log
ERROR PurePythonNodeSetFactory          Failed to parse Python node extension at path 'C:\Users\lil928\Software\knime-geospatial-extension-main\knime_extension'.
ERROR PurePythonNodeSetFactory          Failed to parse Python node extension at path 'C:\Users\lil928\Software\knime-geospatial-extension-main\knime_extension'.
```







Successful loaded Extension



Step By Step
Installation Illustration

KNIME Geospatial Analytics Extension

Lingbo Liu
lingboliu@fas.harvard.edu

Center for Geographic Analysis
Harvard University

Open for Innovation
KNIME