Topics

Sunday, November 3, 2024 12:44 PM

1. **About Anaconda**
2. **Tutorial of Common Anaconda Prompts**
3. **Creating a project environment using Anaconda**

About Anaconda

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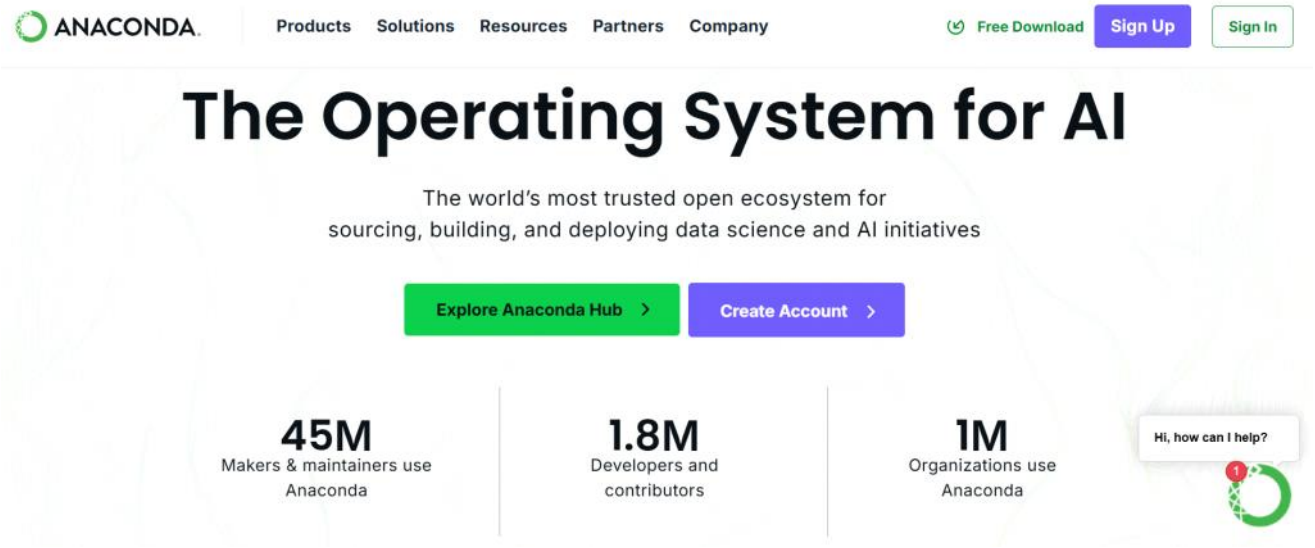
- Anaconda is a popular open-source distribution of Python (and R) mainly used for data science, machine learning, and scientific computing.
- Anaconda includes Conda, a package, dependency, and environment manager, making it easy to install and manage libraries and environments.
- It comes with over 1,500 pre-installed packages for data science, including popular libraries like NumPy, Pandas, Matplotlib, TensorFlow, and Scikit-Learn.
- Anaconda provides easy access to Jupyter Notebook, a powerful tool for interactive coding, data visualization, and exploratory analysis.
- Anaconda includes conda, which is its package and environment manager (similar to pip)



Common Anaconda Prompts

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Common Anaconda Prompts:

- **conda update conda**: updates conda to the latest version
- **conda update -all**: updates all packages to the latest version
- **conda env list**: lists all available environments
- **conda create --name <env_name>**: create a new environment
- **conda activate <env_name>**: activates an environment
- **conda deactivate**: deactivates the current working environment
- **conda list**: lists all the packages installed in the current environment
- **conda env export --name <env_name> --file environment.yml:** export an environment to a .yml file
- **conda env create --file environment.yml:** import the exported environment in another system
- **conda remove --name <env_name> --all**: removes the provided environment

Setup

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1. Create a project directory

2. Install Anaconda
    - Official Website

3. Open Anaconda Prompt

4. Create an Anaconda environment

5. Activate the created environment

6. Install necessary packages:
    - **pandas**
    - **numpy**
    - **requests**
    - **beautifulsoup4**
    - **lxml**: recommended for parsing XML/HTML content
    - **html5lib**: alternate parsers for Beautiful Soup
    - **selenium**
    - **python-chromedriver-binary**: Chrome driver for Selenium
    - **python-geckodriver**: Firefox driver for Selenium
    - **webdriver-manager**: manages and downloads web drivers automatically (*recommended, for auto-updates*)
    - **jupyter**: installs the main components of the Jupyter ecosystem
    - **ipykernel**: to create a jupyter kernel for an environment

6. Create an appropriate Jupyter kernel:
    - **python -m ipykernel install --user --name=<env_name> --display-name "<Your Env Display Name>"**

7. Launch Jupyter and create new notebooks using the appropriate kernel