

Task 9

 📎When to use Conda and when to use pip?

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| **Conda** | **pip** |
| **Conda** is a cross-platform package manager and environment management system primarily used for scientific computing and data science workflows. It is part of the Anaconda distribution, which includes a collection of pre-compiled scientific packages. Conda allows users to create isolated environments with specific package versions, making it easier to manage dependencies and ensure reproducibility. | **pip** is the default package manager for Python and is widely used for installing Python packages from the Python Package Index (PyPI). It is a simple and lightweight tool that focuses on installing individual Python packages rather than managing environments. |
| 1. **Managing complex environments**: Conda excels at managing environments with multiple packages and dependencies. It can handle conflicts between different versions of packages by creating isolated environments for each project or application. This makes it easier to switch between projects without worrying about conflicting dependencies.  2. **Installing non-Python packages**: Conda is not limited to Python packages; it can also install binary packages written in other languages such as C, C++, or Fortran. This makes it convenient for installing libraries that have non-Python dependencies. | 1. **Installing Python packages**: If you only need to install Python packages from PyPI, pip is the recommended choice. It is straightforward to use and integrates well with other Python tools.  2. **Package availability**: While Conda provides a wide range of packages, there might be cases where a specific package is not available in the Conda repositories but can be installed using pip. In such cases, pip becomes the preferred option. |

📎How to use Task Scheduler in Windows / Cron jobs in Linux (Automatic method) to

operate a job

\*Choose One according to Your PC

Task Scheduler is a built-in utility in Windows operating systems that allows users to schedule and automate various tasks on their computer

1. Opening Task Scheduler: To access Task Scheduler, you can either search for it in the Start menu or open it through the Control Panel. In the Start menu, simply type "Task Scheduler" and click on the corresponding result. If you prefer using the Control Panel, open it and navigate to "System and Security" > "Administrative Tools" > "Task Scheduler".

2. Creating a Basic Task: Once Task Scheduler is open, you can start creating tasks by clicking on "Create Basic Task" in the right-hand pane. This will launch a wizard that will guide you through the process step by step.

- Step 1: Name and Description: Give your task a name and an optional description to help you identify it later.

- Step 2: Trigger: Choose when you want the task to start running. You can select options such as daily, weekly, monthly, or even specific events like system startup or user logon.

- Step 3: Action: Select the action you want the task to perform. You can choose from running a program, sending an email, displaying a message, or starting a script.

- Step 4: Start Time: Set the date and time when you want the task to first run.

- Step 5: Finish: Review your task's settings and click "Finish" to create it.

3. Advanced Task Creation: If you need more control over your tasks, you can use the "Create Task" option instead of the basic task wizard.

- General: Provide a name, description, and security options for your task.

- Triggers: Add one or more triggers to specify when the task should start. You can set conditions based on time, events, or even specific actions.

- Actions: Define the action(s) that the task should perform. You can run a program, send an email, display a message, or execute a script.

- Conditions: Set conditions that must be met for the task to run. For example, you can specify that the task should only run if the computer is idle or if it is connected to a power source.

- Settings: Configure additional settings such as whether the task should run only when the user is logged on or if it should be stopped if it runs for too long.

4. Modifying and Managing Tasks: Once you have created tasks, you can easily modify or manage them using Task Scheduler.

- To modify an existing task, simply select it from the list in Task Scheduler and click on "Properties" in the right-hand pane. This will allow you to change any settings or parameters associated with the task.

- To disable or enable a task temporarily, right-click on it and select "Disable" or "Enable".

- To delete a task, right-click on it and choose "Delete".

- To view the history of a task's execution, select it from the list and click on "History" in the right-hand pane.

5. Troubleshooting Task Scheduler: If you encounter any issues with Task Scheduler, there are a few common troubleshooting steps you can try:

- Ensure that the Task Scheduler service is running. You can check this by opening the Services app (search for "Services" in the Start menu) and verifying that the "Task Scheduler" service is running.

- Make sure that the user account running the task has the necessary permissions to perform the specified actions.

- Double-check the task's settings, triggers, and actions to ensure they are configured correctly.

Robotic Process Automation **(RPA)** is a technology that allows organizations to automate repetitive and rule-based tasks by using software robots or bots. These bots can mimic human actions, interact with digital systems, and perform tasks such as data entry, data extraction, and report generation. RPA tools are the software platforms or frameworks that enable the development, deployment, and management of these bots.

* One of the most popular RPA tools is UiPath. UiPath offers a comprehensive platform for building and managing software robots. It provides a visual designer called UiPath Studio, which allows users to create automation workflows using a wide range of activities. UiPath also offers Orchestrator, a centralized management console that enables users to schedule, monitor, and control the execution of bots across multiple machines.
* Another widely used RPA tool is Automation Anywhere. Automation Anywhere provides an integrated platform for automating business processes. Its flagship product, Automation Anywhere Enterprise, includes features such as Bot Creator for building automation workflows, Bot Runner for executing bots on various machines, and Control Room for managing bot deployment and monitoring.
* Blue Prism is another prominent RPA tool that offers a robust platform for automating business processes. Blue Prism provides a visual designer called Blue Prism Studio, which allows users to create automation processes using a drag-and-drop interface. It also offers Control Room for managing bot execution and monitoring performance.
* In addition to these three popular RPA tools, there are several other notable options available in the market. These include WorkFusion, Pega Systems, Kofax, and NICE. Each tool has its own strengths and features, and organizations should evaluate their specific requirements before selecting an RPA tool.