Setting Up Your Development Environment: GitHub, Python, and Jupyter

This agenda outlines the key topics we'll cover in our presentation and working session. Our goal is to equip you with the tools and knowledge to set up your development environment effectively, focusing on GitHub, Python, Virtual Environments, and Jupyter Notebooks.

Agenda:
1. GitHub Setup

- What is GitHub and why do we use it?
- Creating a GitHub account
- Installing Git on your local machine
- Clone a git repository

2. Python Installation

- Checking if Python is already installed
- Downloading and installing Python from the official website
- Verifying the Python installation
- Introduction to PIP

3. Virtual Environment Setup

- What are virtual environments and why do we need them?
- Installing virtualenv or venv
- Creating a virtual environment
- Activating and deactivating the virtual environment
- Installing packages using pip within the virtual environment

4. Jupyter Notebook Setup

- What is a Jupyter Notebook and its benefits?
- Installing Jupyter Notebook using pip

- Launching Jupyter Notebook
- Overview of Jupyter Notebook interface and features

5. Python and Git operations in Jupyter notebook
- Python verification and simple python script execution
- Try out Git operations like git add, commit, status, diff, merge, revert, restore

6. Q&A and Troubleshooting

- Open floor for questions and discussion
- Troubleshooting common installation issues

According to the agenda, **all topics** will be discussed in a **What, Why,** and **How** format. For example, we will cover what Git is, why it is used, and how to install it. Let's begin.