**User Manual: Project Initialization Script**

This manual guides you through using the project initialization script, a Bash script that automates setting up a development project.

**What it Does**

The script simplifies project setup by:

* Creating and activating a Conda environment for managing dependencies.
* Installing project dependencies.
* Optionally running tests to ensure project functionality.
* Configuring Git hooks and workflow for version control.

**Before You Begin**

Make sure you have Git installed on your system.

You can download it from <https://git-scm.com/>.

**Using the Script**

1. Open a terminal window and navigate to the directory containing the script (usually named setup.sh).
2. Make sure the .pre-commit-config.yaml file located in the project directory.
3. Run the script with the desired options. Here's the basic syntax:

Bash

./setup.sh [OPTIONS]

**Available Options**

* **Required:**
  + --git-url: Provide the Git URL of the project you want to initialize.
* **Optional:**
  + --conda-env-name: Set a custom name for the Conda environment (defaults to the repository name).
  + --run-test: Enable (default) or disable running tests after setup.
  + --test-mode: Set the test execution mode (defaults to NORMAL, use REPORT for generating a test report).
  + --dependency-source-paths: If you have local source dependencies, provide their comma-separated paths.
  + --help: Display usage information for the script.

**Example Usage**

To initialize a project from a GitHub repository called "your-repository", create a Conda environment named "myenv", and run tests in normal mode, use the following command:

The following script can be use to existing repositories as well. The script will not clone the the given repository if the repository is already available. The script will add the .pre-commit-config.yaml to the project if the file is missing.

Bash

./setup.sh --git-url=https://github.com/your/repository --conda-env-name=mlops --run-test=true --test-mode=NORMAL

**Understanding the Options**

* **Git URL (--git-url)**  
  This is a mandatory option. Specify the Git URL of the project you want to set up.
* **Conda Environment Name (--conda-env-name)**  
  This option allows you to choose a custom name for the Conda environment where project dependencies will be installed. If not provided, the script defaults to using the project's repository name.
* **Run Test (--run-test)**  
  By default, the script runs tests after setting up the project. Use this option (true or false) to enable or disable test execution.
* **Test Mode (--test-mode)**  
  This option controls how tests are run. The default mode (NORMAL) simply executes the tests. If you want a test report generated, use REPORT.
* **Dependency Source Paths (--dependency-source-paths)**  
  If your project relies on local source dependencies (code stored outside the main repository), provide their directory paths separated by commas using this option.
* **Help (--help)**  
  Use this option to display a quick reference of available options and their usage.

**Additional Notes**

* If you choose to generate a test report with --test-mode=REPORT, make sure a script named run.sh exists in the project directory to execute the tests.
* The script performs the following actions in sequence:
  + Installs Anaconda (if not already installed)
  + Creates a Conda environment with the chosen name
  + Installs project dependencies from defined sources
  + Runs tests (if enabled)
  + Sets up Git hooks using the pre-commit tool
  + Configures Git hooks based on the .pre-commit-config.yaml file located in the project directory. Refer to [https://pre-commit.com/#intro](https://pre-commit.com/" \l "intro) pre-commit configurations.

This project initialization script streamlines the development environment setup process, saving you time and ensuring a consistent configuration.