

# Development Environment Setup

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## Prerequisites - macOS

Ensure you are using Python 3.6 or later. You can check your Python version with:

```
python3 --version
```

Then, install the necessary dependencies:

```
brew install python  
brew install python3  
brew install freerdp
```

## Prerequisites - Linux

Ensure you have the following packages installed:

```
sudo apt-get install -y build-essential libssl-dev libffi-dev  
libqt5svg5 python3-dev qt5-* qtbase5-dev qtchooser qtbase5-dev-tools  
qttools5-dev-tools python3-pyqt5 python3-pyqt5.*
```

## Dependency Overview

- **Python/Python3:** Required for running and managing the Python scripts within the project.
- **FreeRDP:** A critical component for handling RDP connections, required for both development and runtime.
- **Qt5 Libraries:** These are necessary for building the GUI components of the application.

## Clone

Clone the Repository:

```
git clone https://github.com/LaswitchTech/PyRDPConnect.git
```

## Build

Run the Build Script: Use the provided build.sh script to set up the Python environment, install necessary dependencies, and build the application:

```
./build.sh
```

The build.sh script will:

1. Check if a Python virtual environment is available and create one if not.
2. Install necessary Python packages within the environment.
3. Detect the operating system and package the correct version of FreeRDP.
4. Bundle all necessary resources, including styles, icons, and images.
5. Generate the final application package using PyInstaller, with appropriate resources included.

Platform-Specific Notes:

- **macOS:** Ensure XQuartz is installed if you're planning to run the application in a graphical environment.
- **Linux:** If any dependencies fail to install, verify that your package list is up-to-date with `sudo apt-get update`.

## Running the Application

After building, the application can be run directly from the generated .app bundle on macOS or from the executable on Linux.

## Packaging for Distribution

To package the application for distribution, the build.sh script is used. It handles the entire packaging process and ensures all necessary components are bundled appropriately for the target operating system.

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