Basic Software Configuration Guide

1. **Software Overview**

Software Description: This software consists of two main applications:

1. **Login Application:** Allows users to authenticate using an LDAP system. Once authenticated, the software redirects the user to the punch-in application.

2. **Punch-In Application:** Enables users to record their clock-in and clock-out times. The information is stored in a SQL Server database.

General Operation:

- **Login:**

    1. The user enters their username and password in the login interface.

    2. The system connects to an LDAP server to validate the credentials.

    3. If authentication is successful, the punch-in application opens with the username.

- **Punch-In:**

    1. The user can clock in and out.

    2. Punch-in data, such as time and type of punch, is sent to an SQL Server.

    3. Confirmation or error messages are displayed based on the punch-in result.

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2. **Code and Configuration Replacement**

Steps for LDAP Server Configuration:

1. Modify the LDAP Server in the Login Code:

    o Find the line that defines the LDAP server:

ldap_server = 'ldap://192.168.XXX.X:389' # LDAP server IP

    o Replace '192.168.XXX.X:389' with the IP address and port of your organization's LDAP server.

Steps for SQL Server Database Configuration:

1. Update the Connection String in the Punch-In Code:

- Locate the SQL Server connection string in punchin.py:

```
conn_str = (
    'DRIVER={ODBC Driver 18 for SQL Server};'
    'SERVER=XXXX;' # Replace with SQL server name
    'DATABASE=master;'  # Replace with your database name
    'UID=user;'  # Username
    'PWD=password;'  # User password
    'TrustServerCertificate=yes;'
)
```

- Replace XXXX with the SQL server name, master with your database name, user with your SQL username, and password with your password.

2. Update the SQL Query and Credentials:

- Ensure that the SQL database and the punches table exist and have the correct structure. Update credentials if necessary.

Steps for Style Files (QSS):

1. Ensure that style files are present in the correct directory:

- style.qss for the login application.
- style2.qss for the punch-in application.
- These files should contain the appropriate CSS styling for the interface.

Steps for Background Images:

1. Update the background image paths:

- Ensure that loginimage.jpg and fondofichaje.png are in the correct directory.
- If images are in a different location, update the paths in the code:

```
self.set_background_image('loginimage.jpg')
self.pixmap = QPixmap('fondofichaje.png')
```

Steps for Project Dependencies:

1. Install the required dependencies:

o Ensure that PyQt5, ldap3, pyodbc, and requests are installed in your Python environment. You can install them using pip:

pip install PyQt5 ldap3 pyodbc requests

Additional Note:

- Check the permissions and network configurations to ensure that the LDAP server and SQL Server are accessible from the server where the software will run.

- Perform tests to confirm that the connection to LDAP and the database are working correctly.

This guide is provided as a general reference, but keep in mind that the software's functionality in your own environment also depends on the specific configurations of your LDAP server and SQL Server.