**Assignment No.:**

**Title:** Remote Printing

**Aim:** Implement a program for remote print manager to print documents on remote printer. (IP based printer) using Python

**Objective:**

* To print a document on network printer.
* To study different libraries and establish a socket connection

**Theory:** Remote printing is a function in which a computer is used with a distant printer. In the business world, remote printing is considered a substitute for faxing. On-the-go users are able to end files across a proprietary network or the Internet to printers in an office, removing the necessity to carry printer as baggage. In addition, many hotels offer remote printing facilities, particularly those having wireless LAN connections or high-speed Internet in guest rooms.

Ways to set up remote printing include:

* Using a wireless printer - Virtually all modern printers are network printers, which let users connect to their network through Wi-Fi. Once the connection is established, they can use the corresponding driver on every computer, which allows every computer on the network to print to that printer.
* Sharing a printer via local network - Windows enables users to share printers among computers set up in their local network. This option is perfect if the users have a local printer that is connected to their computer by means of a USB. Once the printer sharing feature is set up, the printer operates just like a networked printer. Provided that the computer the printer is associated with is switched on, any other permitted computer connected to the network can print to it.
* Using Google Cloud Print - Google Cloud Print is a remote-printing solution offered by Google. Google Cloud Print is compatible with various new printers. If a printer is not compatible with Cloud Print support, it can be done by configuring Google Cloud Print in Google Chrome
* Using a virtual private network (VPN) - A VPN can be used to access standard network printers if the user is away from the local network. Once a connection between the user's computer and the VPN is established, the users can print to the available printer as if they were on the same local network.

Printers need a static IP address so that they will reliably print to computers on the network. The HP Network Printer Wizard software will allow you to connect to an HP Printer in your office.

## Assign an IP address (Create a Printer)

1. From the Start menu choose All Programs, then HP Install Network Printer Wizard and then HP Install Network Printer Wizard.  
   **Note**: If you see a message about the software being out-of-date and asking if you want to check for a newer version on-line (you don't), so click YES to allow the process to continue.
2. In the Welcome to HP Install Network Printer Wizard, click **Next**.  
   **Note**: If you have Version 4.00 of the HP Install Network Printer Wizard installed, select Wired and then click **Next**.
3. Click "Select from a list of detected printers (recommended)", click **Next**.
4. Highlight the name of your printer from the list. Click **Next**.
5. Click "Let me configure my own network printer settings", click **Next**.  
   **Note**: If you have Version 4.00 of the HP Install Network Printer Wizard installed, skip step 6. Go to step 7.
6. Set the Communications mode drop-down list to **Windows TCP/IP** if it isn't already.
7. Click the **Change Settings** button. Enter the **IP Address**, **Subnet Mask** and **Gateway** information.   
   **Note:** The following is provided as an example only but would apply in a county using a Netgear or DSL connection. If you have more than one printer to configure, reduce the IP address number by one. Examples: 192.168.1.252, 192.168.1.251, etc. The Subnet Mask and Gateway would stay the same.

**Non-Server County**IP address: 192.168.1.253  
Subnet Mask: 255.255.255.0  
Gateway: 192.168.1.1

**Server and 3Com County**IP address: 192.168.14.10 (See note)  
Subnet Mask: 255.255.255.0  
Gateway: 192.168.14.1 (See note)

**Note:** Server and 3Com counties will have specific numbers for their county. At the time of server installation, you will be given your network numbers. Please refer to them when you are assigning IP addresses to your printers. The range of numbers for your printers will begin at .10. Example: 192.168.14.10, the 2nd printer will be 192.168.14.11 and so on for other printers.

1. After you entered the three numbers from step 7, click **OK**.
2. Leave "Use default port name" checked. Click **Next**. Wait if needed. Choose your Driver. Click **Next**.
3. Choose a Printer Name. Click **Next**.
4. If asked, DO NOT SHARE the printer. Click **Next**.
5. Click **Install**. Setup will then install the printer.  
   **Note**: If this process appears to fail, this does not mean that the new IP address hasn't been assigned correctly! The printer may need restarted in order to use the 'new' address. The Wizard is simply not able to change the address and create a new printer in one step. If you receive an error message at this point, please go to the next section to see if the IP address has been assigned.
6. Click **Finish**. Click **Yes**.

**Algorithm:**

1. Import libraries BrotherPrint and socket from brotherprint
2. Establish socket connection
3. Supply IP address of printer and port (default 9100)
4. Create a print job
5. Editing the print job
6. Pass string that needs to be printed
7. Print mode. Options: 'full', 'half', 'special' etc.
8. To print from a file

**Platform/ Languages used:**

**Conclusion:** Thus, we studied and implement the documents remotely

**FAQs:**

1. What is the difference between Email Print and Remote Print?