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## Assignment No: 12

Aim :-

Develop a Real time application like smart home with following requirements: When User enters into house the required appliances like fan, light should be Switched ON.

Appliances should be get controlled remotely by a suitable web interface. The objective of this application is student should construct complete smart application in group.

Theory :- Basics - send emails using python.

1. The smtplib module of python is basically all you need to send simple emails, without any subject line or such additional information.
2. But for real emails, you do need a subject line and lots of information may-be even pictures & attachments.
3. This is where Python's email package comes in. Keep in mind that it's not possible to send an email message using the email package alone.



## How to Send emails ?

1. Set up the SMTP server & log into your account.
2. Create the MIME Multipart Message object & load it with appropriate headers for From To, and Subject fields.
3. Add your message body.
4. Send the message using SMTP Server object.

## The smtplib :

1. The smtplib module defines an SMTP client session object that can be used to send mail to any Internet machine with an SMTP or ESMTP listener daemon.
2. SMTP stands for Simple Mail Transfer Protocol. The smtplib module is useful for communicating with mail servers to send mail.
3. Sending mail is done with Python's smtplib using an SMTP server.
4. Sending mail is done with Python's ~~smpt~~ smtplib using an SMTP server. The instructions here are based on sending email through Gmail.

## Servo Motor :-



1. A Servo Motor is a combination of DC motor, position control system & gears.
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3. A Servo Motor is a combination of DC motor, position control system & gears. Servos have many applications in the modern world & with that they are available in different shapes & size.
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#### Steps :-

- create the lock/unlock application to control the Servo motor lock. change its owner & group as www-data. location : /var/www/html
- write the application to read the image & send it as email attachment to the user. location : /home/pi
- write application using HTML-PHP to control the servo motor lock. location : /var/www/html.

#### Conclusion :-

Thus, we have developed short appl<sup>n</sup> for smart home system.