The main objective of this project is to design and build a home assistant having human personality, by using Arduino and HC-05 Bluetooth module. Mr Green is actually a robot that is invented by aspire technologies, to perform automated, repetitive and pre-defined tasks. Mr Green typically imitates or replaces human user behaviour. This smart assistant allows you to open/close the front door with a door password. It also allows you to turn on/off your room light and if you really want, you can change the colour of the light as well! All you have to do is, connect to Mr Green from your smart phone and send a “hi” to it. Rest will be take care by Mr Green!!

We build the project on Arduino - an open-source electronics platform based on easy-to-use hardware and software. Arduino board senses the environment by receiving inputs from many sensors, and affects its surroundings by controlling various actuators. The Arduino board is programmed by writing code in the Arduino programming language and by using the Arduino Integrated Development Environment. Unlike most other programmable circuit boards, the Arduino does not need a separate piece of hardware (called a programmer) in order to load new code onto the board - you can simply use a USB cable.

The main components used in this project are:

* **Arduino Uno Microcontroller board** based on the Microchip ATmega328P microcontroller is used in this project. This board also consists of other components such as crystal oscillator, serial communication, voltage regulator, etc. to support the microcontroller. Arduino Uno has 14 digital input/output pins (out of which 6 can be used as PWM outputs), 6 analog input pins, a USB connection, a Power barrel jack, an ICSP header and a reset button.
* **Servo Motor** is low speed and high torque motor. It has four main components - a DC motor, a gearbox, a potentiometer and a control circuit. It is controlled by sending a series of pulses through the signal line.
* **HC-05 Bluetooth Module** is a Bluetooth serial port protocol designed for transparent wireless serial connection setup. Its communication is via serial communication which makes an easy way to interface with controller or pc.
* **Common Cathode LED** means that the cathodes of all of the LEDs are common and connected to a single pin. The anode for each LED has its own pin. So driving one of these means running a current from the particular anode(positive) pin for the desired segment to the common cathode pin.