Q) Use buzzer, 4 switches & Arduino to construct a circuit on tinkercad. You have to produce different tone on each button.

*int buzzer = 13;*

*const int switch1 = 12;*

*const int switch2 = 11;*

*const int switch3 = 10;*

*const int switch4 = 9;*

*int switchState = 0;*

*void setup(){*

*pinMode(buzzer, OUTPUT);*

*}*

*void loop(){*

*if(switchState = digitalRead(switch1) == HIGH){*

*tone(buzzer,700,100);*

*delay(100);*

*tone(buzzer,100,100);*

*switchState == LOW;*

*}*

*else if(switchState = digitalRead(switch2) == HIGH){*

*tone(buzzer,800,100);*

*delay(100);*

*tone(buzzer,200,100);*

*switchState == LOW;*

*}*

*else if(switchState = digitalRead(switch3) == HIGH){*

*tone(buzzer,900,100);*

*delay(100);*

*tone(buzzer,300,100);*

*switchState == LOW;*

*}*

*else if(switchState = digitalRead(switch4) == HIGH){*

*tone(buzzer,1000,100);*

*delay(100);*

*tone(buzzer,400,100);*

*switchState == LOW;*

*}*

*}*

Q1) What are the 3 modes of ESP8266-01?

ANSWER:

* Access Point (AP): The Wi-Fi module acts as a Wi-Fi network in Access Point allowing other devices to connect to it.
* Station (STA): The ESP-01 can connect to an AP (Access Point) such as the Wi-Fi network from your house in STA mode. This allows any device connected to that network to communicate with the module.
* Both: ESP-01 acts as an AP as well as STA mode in this mode.

Q2) Write 5 AT commands & their description of ESP8266?

ANSWER:

* AT - Tests the AT start up i.e. if the AT System is working correctly or not. If the AT start up is successful, then the response is OK.
* AT+CIPSTATUS - Information about the connection.
* AT+CIPCLOSE - Close TCP or UDP connection.
* AT+RST - This command can be used to restart (reset) the ESP8266 Wi-Fi Module.
* AT+CIPAP - Set the IP address of ESP8266 soft AP.

Q3) Write applications where you can use ESP8266?

ANSWER:

* Internet of things (IOT).
* Home Automation.
* Wi-Fi controlled robot.
* Smart devices.