**AIM: -** to make a door bell using arduino uno.

**Concept Used**:

The entire circuit is build in the concept of input-output and voltage supply. I give an input and according to it the circuits gives an output in the form of buzzing of buzzer when the button is pressed. Here the concept of common ground came into more uses. The board is equipped with sets of analog and digital input-output pins. All the instruction executed by the board are given to it using a program written in Arduino programming language. For This experiment I use digital pin 2 & 7 as output along with 5V supply pin. The positive terminal of the buzzer is connected to these digital pin 7 through a resistor of 100Ω(optional) and the negative terminal is connected to the ground of the Arduino board. Switch is connected with 5V power supply pin and other end of switch is connected to digital pin 2 and ground through a resistor of some resistance.

**Learning & Observation**:

After doing this experiment I became familiar with circuit boards and Arduino programming. Now I can distinguish between the input and output pins of a board easily. And make some programming to design a electric bell and switch related modals. I also observed that how a simple change in code can affect the functioning of my modal.

**Problem Troubleshooting**:

Weak logical approach cause wrong connections. Re-think about the logic and redesign the connections and code to overcome the trouble.

**Precautions**:

Precautions that one should take while doing his project are given below:

1. Make sure you correctly select the board and port in the "Tools" option in Arduino IDE(Integrated Development Environment) .
2. Handle the Arduino board carefully as a simple damage can made the hardware useless.
3. Keep in mind that I should write program that is small in size as Arduino came with low inbuilt memory.
4. Carefully connect the positive terminal to the output pin of the circuit as any wrong connection would make chaser not to work.

**Learning Outcomes**:

Trough this experiment I came to learn about the Arduino board and working of it. After performing this experiment I learned, how a logical thinking can resolve difficult tasks easily. I started learning to make a bit complexed modals by using logical thinking, arduino uno and coding.