

Smart Home IOT Device Automation



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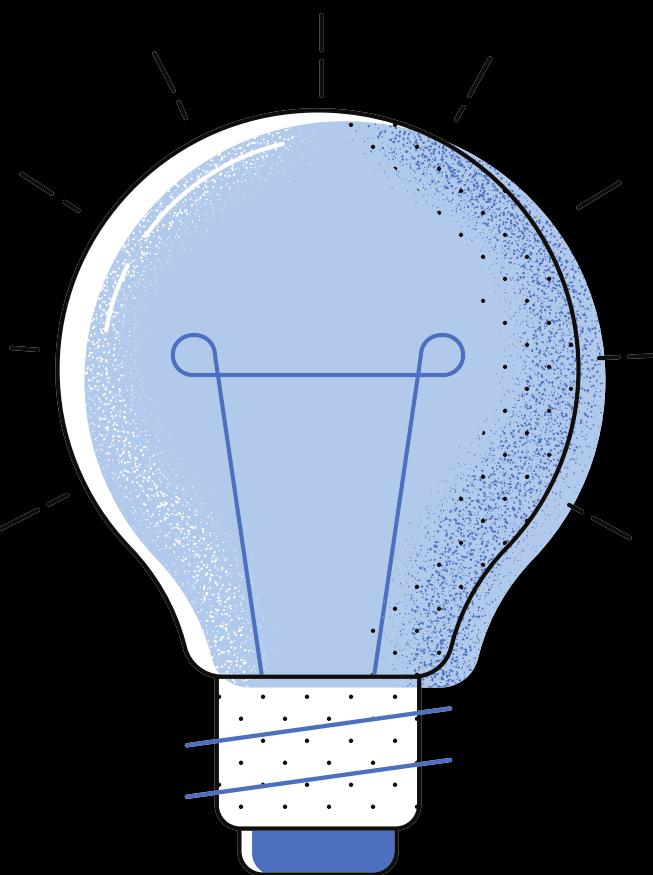
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Introduction

Automation of IoT devices for smart homes refers to the use of computer networking to link household appliances and gadgets and manage them remotely via a centralised system. Automation seeks to boost comfort, energy efficiency, and security in homes by handling things like lighting, heat, and entertainment systems.



Objective



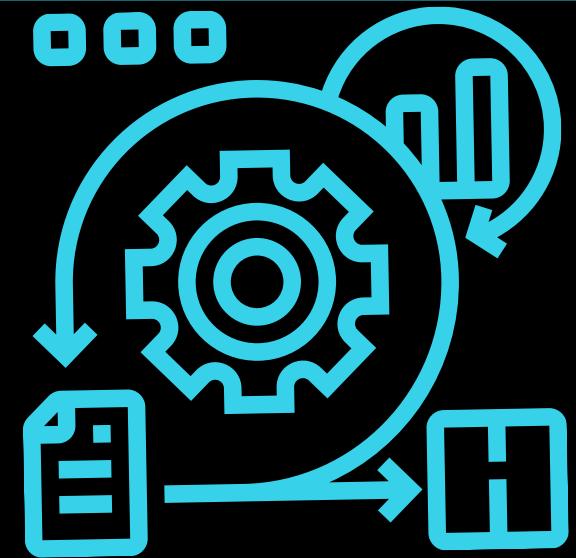
- The purpose of smart home IoT device automation is to provide homeowners with a more practical and effective manner of managing their homes.
- Smart home technology offers remote administration and communication between linked devices, allowing homeowners to automate a range of duties and tailor their living area to their preferences.
- This technology also aims to improve energy efficiency and home security.

Data Resource Used

- Sensors, actuators, and controllers are only a handful of the data sources used in the automation of smart home IoT devices.
- These devices collect data about the interior environment, such as temperature, light, and motion.
- Furthermore, cloud computing resources are widely employed by smart home automation systems to process, store, and enable remote access to the system.

Methodology

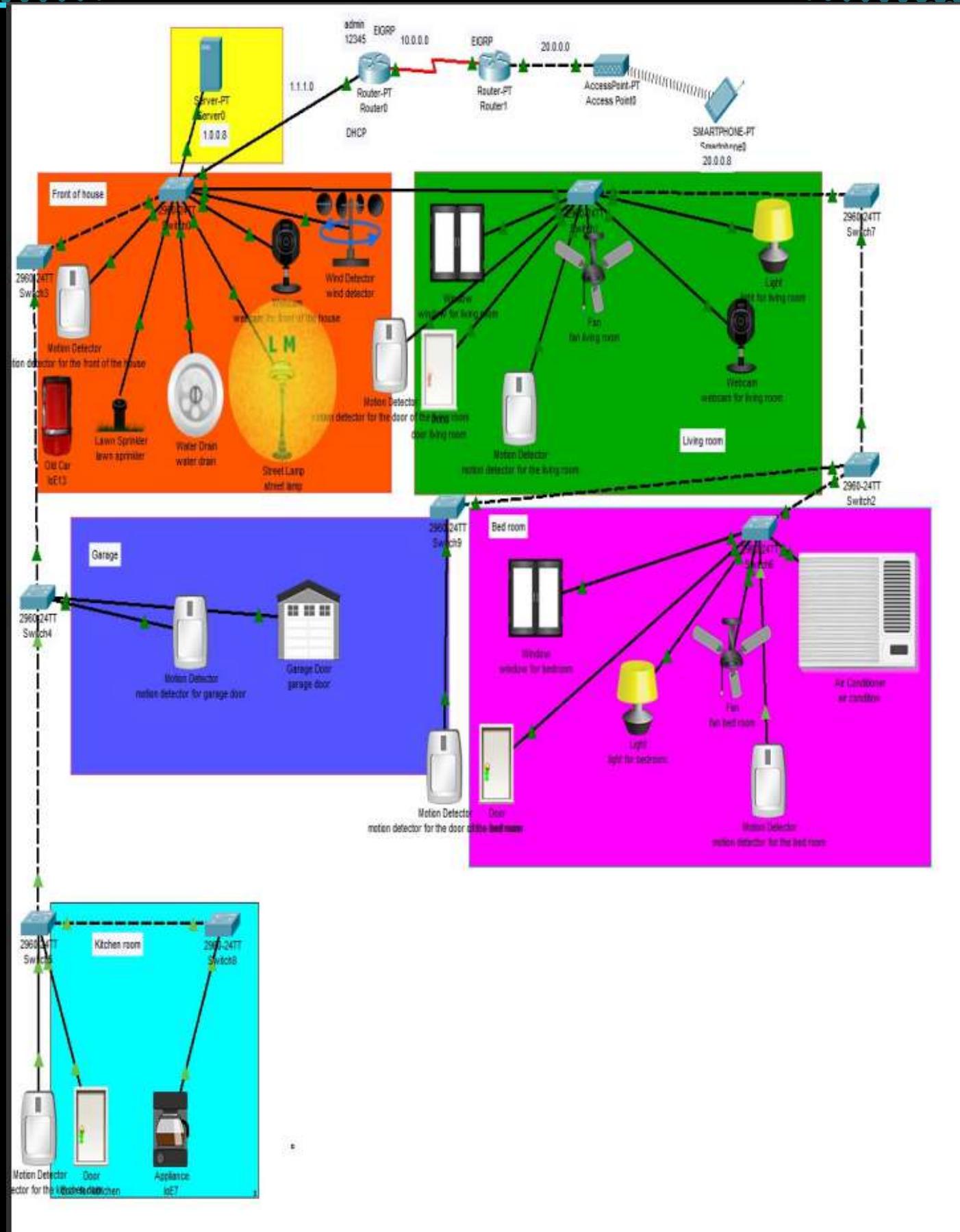
The procedure comprises selecting appropriate devices, setting up the network, and establishing automation rules in order to optimise energy consumption, enhance convenience, and strengthen security.



Result Achieved

- Our Cisco Packet Tracer simulation of a Smart Home IoT Network shows efficient data processing with low packet loss and latency.
- We did meet several challenges, however, such as the need for secure device connection and potential interference from other wireless networks.

Performance Evaluation



CONCLUSION

Smart home IoT devices can greatly enhance the convenience and comfort of our daily lives, but they also present certain security and privacy risks. Therefore, implementing a computer network project for a smart home system requires careful planning and consideration of various factors.

- smart home IoT devicerobotization is a fleetly growing field that's revolutionizing the way we interact with our homes.
- With the help of computer networking technologies, smart homebias can be connected, covered, and controlled ever through mobile apps or voice commands
- This technology allows homeowners to automate colorful aspects of their homes, similar as lighting, temperature, security, and entertainment, making their lives more accessible, comfortable, and effective.Smart home IoT bias calculate on wireless networking, pall computing, and detectors to communicate and collect data. able, and energy-effective.



References

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