A lot of work has been done on privacy and security of IoT devices and their access control. Most of the IoT devices have sharing options for just guest and owner, where access -control for different IoT devices used at home must be varied on trust, intimacy, maturity of the user. It is shown that different access-control policies are desired for different IOT devices for different members at home based on their relationship and age , even if for different capabilities of single device ,access-control policies should be different and customizable, based on user. (Rethinking Access Control and Authentication for the Home Internet of Things (IoT), ) Moreover people want to share access of some IOT devices with relatives or friends outside of home for safety and other few issues (An Exploration on Sharing Smart Home Devices Beyond the Home). With the emergence of share economy like AirBnB, it has been quite common to share IoT devices with people outside of home while staying as tenant. Such sharing schemes also increase the risk of violation of owner’s informational and physical privacy. Strangers often have to trust each other with their privacy.

Methods Overview: