Smart Home Automation System

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**Functional Requirement:**

* The development of a mobile application which will control the devices in the system over the internet.
* User friendly and easy to use interface of the application that can be easily used by anyone who knows how to operate smart phones.
* To prevent unauthorized access to the system, a secure authorization panel will be developed to gain the access of system over the internet.
* Only the authorized user will be able to monitor and control the system through application.
* The application will be consisting different controlling options related to the system’s device load.
* An authorized user can be able to control the required devices through the application over the internet from anywhere.
* A user can also monitor the energy consumption through the mobile application.
* A user can also check the overall energy consumption as well as of a single device connected on the system.
* A user can manage the overall load of devices connected on the system through the application.
* The integration of hardware with mobile application with the help of Arduino/Raspberry pi board.
* The connectivity and control over the internet of the particular devices through Wifi Modular, Bluetooth transmitter/receiver and some other sensor’s.

**Non-Functional Requirement:**

* Cloud integration through application for intelligent control and automation of the system.
* Intelligent automation will be performed on the basis of data feedback from devices to cloud with the help of Arduino/Raspberry pi.
* Perform predictions on basis of routine data analysis of devices which will control them smartly in future.