**IoT Data Analytic Levels**
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Data analytics tools have become one of the most important components of Internet of Things (IoT) technology, it is actually the essence of IoT, where IoT is based on communication between the users and objects, without data analysis the user cannot identify whether or not the system is working properly.

The level of data analytic that is required in the IoT system depends on the application, and implementation methods. For instance, in smart homes, a monitoring system keeps a constant feedback on the times the light bulbs have been turned on/off. This system provides a descriptive analytic level, which tell what happens and leave the decision making for humans (data collecting, maintenance and troubleshooting, history records).

Level two of data analytics is the diagnostic level, in this level the system will try to analyze the reasons behind certain kind of behavior. If someone is used to turn off home lights around 9 P.M., the system will suggest in the monitor that this person tends to sleep early. Diagnostic level has less human involvement than the descriptive level, yet still independent from human decisions.

The third level of data analytics is the predictive level, for instance, if we add artificial intelligence to level two, according to the information provided by the diagnostic analysis, it can predict that the user will go to sleep at 9 P.M. accordingly, it can help in prediction and probabilities.

The final level of data analytic is the prescriptive level, this kind of analytic system will provide suggestions to the users according to their history of actions, like suggesting to turning off the TV off at 9 P.M. (decision support) or turning it off automatically without human involvement (decision automation).