Smart things-Smart Life

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Abstract:- In this developing country and a modern world we come across many new things in our day to day life, the science and technologies around us also grows drastically. People in the world has no time to do anything properly, they are running towards to achieve their daily goals and to shape their future. Now one main thing that gives many benefits to these busy citizens are technologies that develop and make everything instant and easy. One among these things that make the life simple and easier has come to our hands. We know that everything is made digital now. As a part of this digital India system, A new product is been introduced. This is said to be the so called dream of many working and busy citizen. The product is proudly named as smart things modem. This modem is like a mentor to the people, it take care of us and our belongings. It does every work that we forget to do automatically and even indicates or alerts us about any danger that nears us. The simple thing we need to do is take this home.

Keywords-Modem, smart things

The main motive of this is

ADDING INTELLIGENCE TO EVERYDAY THINGS IN OUR WORLD, SO OUR LIVES CAN BE MORE

AWESOME.



SMART:

This smart thing is a collection of many items which is spread all over the home to monitor each and every activity that happens in our home. The sensors and devices that are placed in the parts we needed senses the happenings and send it to the common modem connected in the home. Then the back messages that send by the modem is done by the devices, or if case of any alerts like fire indications or any other problems are been sent as a message to the phone of the owner. These things can do whatever we commend. The works of this smart modem and things can be programmed and modified as per the needs of the person using it.

Whatever a person needs as his wishes can be done by this community of people using these smart thing materials. Smart Things makes it simple to connect our day to day things in our physical world to be digital. We can monitor, control, automate and have fun with them from anywhereat home, office, or the go. We have made it possible to

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install apps that interact with the smart things modem, as well as other services. This unlocks the world of possibilities and unlimited potential to make our life easier, more convenient and fun, we totally call these as smart life.

SMART APP POTENTIAL IS LIMITLESS:

- Smart Apps are able to mash up and interact with connected things in our physical world, allowing for incredible creativity.
- We get notified immediately if our pet runs out of our yard without our presence. Then Smart App gives a message to us.
- We get an early warning or directly contact a plumber when there is a leak somewhere (bathroom, basement, etc), before damage gets out of hand with the message "It's Leaking!" Smart App.
- We can also monitor drawers and cabinets that contain precious or dangerous items and if it has any problem then it alerts us with the message "My Stuff is not secure" Smart App.
- By this each and every parts of the home including works like plumbing, electrical circuits in home are also monitored and mentioned, things and happenings more than we imagine can also be done by this smart apps.
- To say simply and gladly these smart things are the all rounder, which does each and every works.
 To say in other words it is like having another brain with us.

IT WORKS WITH A LOT OF THINGS:

All the things that are present in our home: doors, desks, lights, stereo, pet food bowls, basement floor. How it will be if they started to chip in and do a little more around the house on their own? Yes Smart things make it possible.

INSTACUBE UPDATE: We built this Smart Things as an open platform, because we know that there would be a world of useful, beautiful and creative products that could be made smarter with Smart Things.

In these present days, we're thrilled and glad to announce a unique partnership between two wonderful projects – Smart Things and Instacube - that deliver the power of this integration and collaboration. Together we can make it as instacube smart.

We will be working with the creators of Insta cube to integrate the Smart Things technology - imagine the possibilities:

- Elegant and visual notifications for the events in our life that matter most, including someone arriving at your door, your pet leaving, or a reminder that you've left the garage door open right before you head to bed - without taking your phone out of your pocket.
- A beautiful, touch screen interface for controlling the physical world around you, such as your lights, doors or air conditioning, etc.
- The presence awareness of Smart Things can drive Instacube to turn on or off and also to display the photos of the user who is present enabling many intelligent interactions.
- Integrated Smart Apps such as "Morning Routine" that can turn Instacube on as an alarm, get the coffee brewing, and turn on the bathroom lights.



DAY TO DAY UPDATES:

Many of the existing things you own can be made smarter using Smart Things Kits. At launch, the following core devices will be available:

- Power Outlet anything that can be plugged in, can be turned on and off
- Open/Shut Sensor know if doors, windows or cabinets are open or closed
- Motion Sensor detect movement within a room
- Presence Sensor know when people and pets come and go

Smart Things are designed to be compatible with many of the existing standards for home automation, smart energy and more. There are literally hundreds of existing sensors and devices you can use. And with your support, many more of these devices will be certified for use and made available in the Smart Things Store.

- ✓ Door Locks
- ✓ Thermostats
- ✓ Temperature and Humidity Sensors
- ✓ In-Wall Switches and Dimmers
- ✓ Smoke and CO Alarms
- ✓ Moisture and Flood Sensors
- ✓ Vibration and Pressure Sensors ,And much more

NOTE FOR YOU: Smart Things Packs will support a variety of connectivity methods, including Ethernet, cellular, Zigbee, Z-wave, and Bluetooth. The initial launch units will be U.S. only, and may or may not include cellular connectivity.

If you're a developer or Maker, Smart Things is an open platform and we've got a whole program just for you.

DEVELOPER AND MAKERS KIT:

This gives more adventure among early access to all the Smart Things tools. All Makers and Developers backer levels that come with,

- ✓ 1 Smart Things Hub,
- ✓ 3 Smart Things (developers) or 2 Smart Thing Modules or Shields for Arduino (makers) .
- ✓ Software Development Kit (SDK) for everything needed to be developed ,Smart Thingsfriendly software.
- ✓ Cloud Platform API integrate the device or app directly by using Smart Things,
- ✓ Mobile App Extension Template embed controls for your project in the Smart Things mobile app
- ✓ And finally a lot of love!

HACK THE PHYSICAL WORLD:

We want to free physical devices from the iron grip of the few who understand the firmware. That's how Smart Things will be a completely work as a platform. Our core mission for Smart Apps is to enable developers to unleash their creativity in the real world just as easily as they have been able to on the web and mobile devices.



PATHS TO CREATE SMART APPS:

- > BASIC
- ADVANCED

At the Basic level, we can generate new Smart Apps using a web based interface with full access to existing triggers and available actions within the Smart Things cloud.

At the Advanced level, we are creating and exposing an SDK for the physical world of non-smart devices, enabling them to plug into the digital one and become smart.

 We give your front door an API. We give your bed an API. We give your toilet an API. Your imagination is the only limit.

We are working hard to make sure that our APIs are both straightforward and secure. You can use your preferred development language and tools to do amazing things with the physical graph that Smart Things is bringing online.

We are ready to integrate with all of your favorite web services.

The uses are endless. Let's work together to make the physical world smarter.

We've got dozens of ideas to share for how to make our lives smarter, but we're also eager to hear yours.

If you're handy with a soldering iron, know that a breadboard isn't just for cutting Rye, can casually slip Arduino into daily conversation, and are ready to hack your own physical world, we're ready to support you.

For you makers and open hardware buffs, we've got:

- Smart Things Thing Module add cloud intelligence to any device
- Smart Things Thing Shield and Sketch for Arduino make your existing project smarter
- Smart Things Software Development Kit (SDK) develop Smart Things-friendly software
- Cloud Platform API integrate your device or app directly with Smart Things
- Mobile App Extension Template embed controls for your project in the Smart Things mobile app.

FONDERS OF SMARTTHINGS:

The Smart Things founders share a vision:

"A product experience that is beautiful, functional, fast and revolutionary. We can't wait to get Smart Things into your hands. Reach out to us in the Comments section if you want to speak with any of us directly."

- ➤ Alex Hawkinson
- ➤ Andrew Brooks
- Ben Edwards
- James Stolp
- Jeff Hagins
- ➤ Jesse O'Neill-Oine
- ➤ Scott Vlaminck

HISTORY OF EVOLUTION:

Like most innovation, Smart Things started with a flooded basement. During a power outage, the pipes get froze and burst, flooding the basement. In looking for options to get notified about temperature drops and flooding, it became clear that available solutions required a separate Internet connection. Even if the cabin had one, it would have shut off in the power outage.

So the concept of 'it just works' for Smart Things was born. Our vision is to include always-on cellular connectivity in every Smart Things Hub, so you just take it out of the box, plug it in, and it's connected. Even better, when you buy new devices, what we call Things, from the Thing Store, they'll be pre-assigned to your Smart Things Hub. Plug them in or turn them on, they show up in the app, and you're immediately in control.

Our real inspiration came when we realized how intelligent everything in our lives could become through the power of computing in the cloud – Smart Apps were born. Installing applications into your real life should be as easy as it is on your phone. Smart Apps let you combine schedules, events, notifications, information from the Internet and many sensors and devices to create useful solutions that make life easier and more fun.



MY IDEA:

So, based on this project, I have created a new idea with this smart things. This smart things great benefit is that the user can ask whatever the things and facilities they want, this has no end, still the creativity in our minds end. As we say it is a user friendly device. So, now I am going on with my idea. Some homes not some most of the homes will have old age people, some may be good some may be with a poor health condition due to aging.

They also left alone in the home because we have to go to our works. By that time we have to keep some person for guide. Most of the cases a good guide will not be available to take care of them and it also may cost heavily, due to this our elders and parents in the home may also feel guilty.

To face all this problem there is a very easy, simple, and safe technique is found by my idea. The motive is that connecting a heartbeat, IR- sensor, motion sensor, or an API to the person we need to take care. Then the other thing connect it to the smart thing modem. Over now all other things is the work of the smart thing hub. It senses all the activities of the person and dose what should be done in which situation. Then another thing is that all the activities of the person and in case of any emergencies this sends alert to people in the home and to one officials office. This is what my idea it may have some boon and bane. But, leaving the boon and overcoming the bane, this would come as an wonderful output.

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CONCLUSION:



Thus, now we come to an end, most of the people still ask is smart thinks important and is that really work? But that truth is that they are surprised that can a small box and a app can control the hole home! But the truth is that the Smart Things Hub is the only most important piece and is the one thing that is used to run the whole home automation system. It connects wirelessly to all your smarthome devices and lets you monitor and control them using a single app.

In order to live a peaceful life, to do our daily work very happily and relaxing, in order to be safe and save our times we must need this smart things.

So, I conclude that make use of this wonderful product build a smart home, make the country smart and live a digital, automatic and peaceful life.

REFERENCE:

- [1] Networking and Information Technology Research and Development (NITRD) Program. (2015). Smart and Connected Communities Framework. [Online]. Available: https://www.nitrd.gov/sccc/materials/scccframework.pdf.
- [2] Y. Sun, Y. Xia, H. Song, and R. Bie, "Internet of things services for small towns," in Proc. Int. Conf. Identificat., Inf. Knowl. Internet Things (IIKI), Oct. 2014, pp. 92–95.
- [3] A. J. Jara, Y. Sun, H. Song, R. Bie, D. Genooud, and Y. Bocchi, "Internet of Things for cultural heritage of smart cities and smart regions," in Proc. IEEE 29th Int. Conf. Adv. Inf. Netw. Appl. Workshops (WAINA), Mar. 2015, pp. 668–675.
- [4] H. Song, R. Srinivasan, T. Sookoor, and S. Jeschke, Smart Cities: Foundations and Principles. Hoboken, NJ, USA: Wiley, 2016.
- [5] U.S. Department of Transportation. (2013). Livability 101. [Online]. Available:
- [6] UNESCO. (2014). Protecting Our Heritage and Fostering Creativity. [Online]. Available:
- [7] S. Simon. (2015). In the company of scholars: 'Are We Losing Our Past or Our Future? Sustainable Preservation of Cultural Heritage'. [Online]. Available:
- [8] N. D. Milder and A. Dane, "Revitalizing small towns: Resolving downtown challenges," Econ. Develop. J., 2013. [Online]. Available:
- [9] Annex, "World commission on environment and development," Oxford Univ. Press, New York, NY, USA, 1987. Tech. Rep. A/42/427, 1987.
- [10] Sustainable Communities. (2016). About Sustainable Communities. [Online]. Available:
 [11] A. T. Campbell et al., "The rise of people-centric sensing," IEEE
- [11] A. T. Campbell et al., "The rise of people-centric sensing," IEEE Internet Comput., vol. 12, no. 4, pp. 12–21, Jul./Aug. 2008