Internet of Things (Lead Engine)

LEAD ENGINE LOGO


Figure 1 Logo Lead Engine

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# Abstract

The Internet of Things (IoT) defines a network of physical objects— “objects” - embedded in sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and applications over the Internet. These devices range from standard household appliances to high-end industrial tools. With more than 7 billion connected IoT devices today, experts expect this number to grow to 10 billion by 2020 and 22 billion by 2025.

The company 'lead Engine' was renovated in the year 2012 and since then it has been almost 6 years that we have made many groundbreaking discoveries and innovations that are in the market now and leading the futuristic needs of the community. We were recognized as an official company in the year 2014, and since then we have dedicated ourselves to this task of making tech which will change how the world is perceived now.

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# 1 Introduction

The Internet of Things (IoT) defines a network of physical objects— “objects” - embedded in sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and applications over the Internet. These devices range from standard household appliances to high-end industrial tools. With more than 7 billion connected IoT devices today, experts expect this number to grow to 10 billion by 2020 and 22 billion by 2025.

Over the past few years, the IoTs has become one of the most important technologies of the 21st century. Now that we can connect everyday items — kitchen items, cars, thermostats, baby monitors — to the internet via embedded devices, seamless communication is possible between people, processes, and things.

The purpose of lead Engine is to improve and develop new cutting-edge technology and change the future with the enhancement of everyday tool. We work towards creating a future that is both luxurious and easier for the coming generation. We are a team of highly skilled technicians in the field of smart tech. our company provides the community with things which can make a huge impact on every aspect of life. Lead engine is a corporation of trust and integrity.

# 2 Background

The term ‘Internet of Things’ was first used sixteen years ago. Even though the actual idea of devices and gadgets was longer. Since the early 70’s, Internet of Things was referred to as ‘embedded internet’ and other similar terms, but the official term of Internet of Things was started in 1999.

The company lead Engine was renovated in the year 2012 and since then it has been almost 6 years that we have made many groundbreaking discoveries and innovations that are in the market now and leading the futuristic needs of the community. We were recognized as an official company in the year 2014, and since then we have dedicated ourselves to this task of making tech which will change how the world is perceived now. The technology and products produced by our company are always of a top-notch quality.

## 2.1 Internet of Things

The Internet of Things (IoT) defines a network of physical objects— “objects” - embedded in sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and applications over the Internet. These devices range from standard household appliances to high-end industrial tools. With more than 7 billion connected IoT devices today, experts expect this number to grow to 10 billion by 2020 and 22 billion by 2025.

Over the past few years, the IoTs has become one of the most important technologies of the 21st century. Now that we can connect everyday items — kitchen items, cars, thermostats, baby monitors — to the internet via embedded devices, seamless communication is possible between people, processes, and things.

### 2.1.1 Applications

By using low-cost computer, cloud, big data, analytics, and mobile technology, material can share and collect data with minimal human intervention. In this interconnected world, digital systems can record, monitor, and correct every communication between connected objects. The virtual world meets the digital world - and works together. IoT applications use machine learning algorithms to analyze large amounts of data connected to the cloud. Using real-time chart dashboards and alerts, you get visibility on key performance indicators, time-specific statistics between failures, and other information. Machine-based algorithms can detect machine malfunctions and send alerts to users and initiate automatic corrections or effective counter measures.5G is coming - but will it have a real impact on IoT by 2020? 5G connectivity is the fastest, cheapest way to send and receive large amounts of data wirelessly. Already, technology will drive a new range of hungry IoT applications for bandwidth in the future, including connected cars and a host of new video features.

Table 1 IoTs global share

|  |  |  |
| --- | --- | --- |
| IoTs SEGMENT | GLOBAL SHARE OF PROJECTS | DETAILS |
| SMART CITY | 23% | AMERICA: 34%-EUROPE: 45%-APAC: 18% |
| CONNECTED INDUSTRY | 17% | AMERICA: 45%-EUROPE: 21%-APAC: 30% |
| CONNECTED BUILDING | 12% | AMERICA: 53%-EUROPE: 21%-APAC: 38% |
| CONNECTED CAR | 11% | AMERICA: 40%-EUROPE: 45%-APAC: 3% |
| SMART ENERGY | 10% | AMERICA: 23%-EUROPE: 60%-APAC: 35% |
| CONNECTED HEALTH | 8% | AMERICA: 47%-EUROPE: 21%-APAC: 11% |
| SMART CHAIN SUPPLY | 6% | AMERICA: 29%-EUROPE: 44%-APAC: 18% |
| SMART AGRICULTURE | 7% | AMERICA: 79%-EUROPE: 4%-APAC: 46% |
| SMART RETAIL | 23% | AMERICA: 55%-EUROPE: 30%-APAC: 13% |

### 2.1.2 Impact

In a world of increasing productivity and sophisticated performance, reducing risk and ensuring compliance, job enlightenment has always been the key to improving global performance (cost, speed, quality) and efficiency. Digital transformation takes the industry a step further in these parameters by providing performance managers with real-time connectivity and information flowing across the environment. IoT promises to make our environment - our homes and offices and cars - smarter, more measured, and ... more communicative. Smart speakers like Amazon's Echo and Google Home make it easy to play music, set timers, or get information. Home security systems make it easy to monitor what is happening inside and out, or to see and talk to visitors. In the meantime, smart thermostats can help us heat our homes before we return, and smart lightbulbs can make us feel at home even when we're out.

## 2.2 Our Purpose

Lead Engineis on the path of the digital future. ‘lead Engine’ always works towards making connection and investment with other corporations that have the same goal and requirements. With using the most implementable but advanced products we assure our customers with products that are not only futuristic but also last a lifetime. The quality of our products can never be compromised in any circumstances, In the growing world of innovations of invention. The main task for our team has always been to construct a software with a user-friendly interface. Its main purpose is to make the interaction between our products and our users is to make communication between them. A world of frontiers and vanguard products. An era filled with futuristic products that helps our customer live a more comfortable and easy life. The technique and achievements that are employed by the corporation are the brightest, among others. High level IT- department with their frontier knowledge and skills of the ongoing gadgets help us to create new state of the art technology. Our undivided attention has always been to try and pursue the legal and the most unorthodox way of business and investment. But also keeping in mind the needs and demands of our customers. For our main purpose is to serve the users while leading them into the new era of digitalization and modern technology.

## 2.3 OUR SERVICES

### 2.3.1 Business analyze

Lead engine helps growing business by in-depth analyzing, plus using our original powerful ai machine learning. AI machine learning is one of the most important aspects of our corporation. With new cutting-edge technologies and help from a digital system we analyze the most basic and known trends of our customers. It is important to know the demand and needs of our users and future customers. Looking into these demands by using big data bases we collect all type of information from different sources. These information sources are usually gathered from the AI machine owned and created by our high-tech IT department. The AI machines gather all sorts of information and knowledge and integrate them into our system namely our engineers to produce and come up with new cutting-edge technology according to the latest trends and needs.

### 2.3.2 Software planning

Lead engine builds latest up to date latest tech, the main task for our team has always been to construct a software with a user-friendly interface. Its main purpose is to make the interaction between our products and our users is to make communication between them. Communication is a very essential tool for all technology products. Without providing a user-friendly software we cannot maintain the quality of our company. The software management of the devices comes with a policy of free unlimited updates, so you need not worry about your tech going rusted. The software is designed in a well-organized manner by our users that run the program efficiently and neatly without any confusions and ambiguity. It is an already built-in function to provide our customers with the top-notch technology without any inconvenience. The unlimited updates are automated. The user will automatically have his product updated when connected with any source of internet. Our user-friendly interface is not only likely to be less complex but also have high functioning tools. The quick features allow the user to operate and go through the product easily. Making them easy to understand and use by the user.

### 2.3.3 Integrated solution

Lead engine is a corporation of trust and integrity. Our products are made with the utmost attention and devotion. The quality of our products can never be compromised in any circumstances, In the growing world of innovations of invention. Lead Engine especially works hard in providing the best services for its customers. The satisfaction and the want of the customers are held above any other functionality. And thus, comes our guarantee and warranty system. We will always give you guaranteed and certified products and if any malfunction occurs then our company’s tech supervisors will replace it with latest technology, and it will be free of cost. The company demand and need for creating a trust between ourselves and our users and customers has led us to work hard in providing the best and the most satisfying work. Increasing demands of a product does not decrease its reliance or the power to work. A whole department has been set up known as ‘the customer service’ to look over all the issues and ambiguity that might have been created by a product. Their sole existence is to work hard and provide satisfying result for both the corporation and the customers. The guarantee provided for our products is genuine. It continues to provide a safeguard and authenticity of our technology.

## 2.4 Investors

### 2.4.1 Nvidia

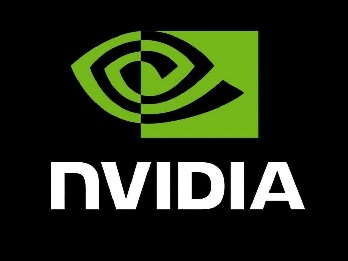


Figure 2 nvidia

Nvidia is a multinational American company. It is a technology-based company that is incorporated in Delaware. The corporation is in Santa Clara in California, state of America. The main purpose of this company is to manufacture graphics processing units (GPU) that are solely use for gamming and other marketing. It also produces System on a chip Unit or (SoCs) that are installed in mobile and used for computing in mobile and automotive marketing. Nvidia is in direct competition with Advanced Micro Device (AMD) for the product that is labeled GeForce. It is also well known to produce a lot of products for gamming community including Shield Tablet, Shield Portable and the cloud gaming service is especially known as GeForce Now. In addition to contributing to gaming community Nvidia has done a lot of work in providing parallel processing to research and allow the applications to run with high performance and mobility. It has also been recently working in producing compatible products for mobiles like Tegra mobile processor for both smart phones and the tablets. The Tegra processor are used to provide necessary entertainment system and vehicle navigation in all sort of mobile phones and tablets.

Lead Engine worked with Nvidia team to come up with a new innovative project that would change the gaming industry for good. The corporations united to create a product that left the gaming community in awe. The production of **GeForce GTX G**-**Assist** that contains an algorithm of deep learning which provide a new gaming experience for its user. This collab allowed for two major productors of gaming products come up with an innovative cutting-edge technology which allowed us to reshape the future for gamers. The product easily provides an open software system that allows to change the hard drive without having to use reverse engine. The GPU produced by Nvidia are also used in some of our AI system that support and provide a healthy environment for our technology. Its inception program also helped in creating a vast and diversity in fields of data science and AI. (Nividia)

### 2.4.2 Tobii

Logo

Description automatically generated

Figure 3 Tobii eyetracking

Tobi is a high-tech producing company that mostly works to produce and selling products related to eye control and tracking with eyes. It is a Swedish based company. The company was founded in 2001. Three of the co-founders worked hard and played an active role for the company. This company is consistent of three major units, namely. Tobii Dynavox that are from an acquisition based in the US DynaVox, second is the Tobii pro and lastly is the Tobii tech. Tobii company is based in Stockholm. It has its offices in Japan, US, Norway and even Ukraine. The company invested in venture capital in 2007. They also won the award for Grand design in Sweden. They were awarded to produce Myra Industrial Design that was used to eye control the screens. Later they won an award again for Tobii Glasses and then for the best prototype in technology. The products produced by Tobii are sold thoroughly and directly to partners that are available worldwide. Tobii company was able to produce highly functioning devices for people with abnormalities. The products provide safety and easy to use interference to its user. Due to the high cost of manufacturing these cost they are used as charity drives.

Their products are highly used in research for academic purposes. Tobbi cooperated with other units for gamming, in AI, driver assistance to produce and survey commercial products. They produce integrated devices to enhance and improve the working of a system. VR eye tracking is used to interact and work with new environments online. Lead Engine cooperated with Tobii to produce a high-tech eye tracking device. Its cutting-edge technology that creates a new environment for the gamming community. It is the only product design to keep track of both your eyes and head movement. It gives a new revolutionary experience of gaming. Aim training of eye can be done through using this gadget. The software and integrated devices used in these products are latest and designed with a futuristic approach. This cooperation led to a new era of technology and opened gates that provide hundred and thousands of opportunities for the users or customers that are awaiting a new digital era. (Tobii, 2019)

### 2.4.3 CD Projekt

Logo

Description automatically generated

Figure 4 CD projekt

CD projekt is a well-known producers of video game. They are Polish game developer that are distributed and based in city of Warsaw. It was initially a retainer for the distribution of foreign games but later started to move on from the domestic market and produce high level games. This game developer is especially well known for the publishing of game The Witcher series. They collaborated with companies like interplay entertainment to translate a game into polish. The game was also well known as Baldur’s gate. But due to unfortunate set of events the code initially set for Baldur gate was turned into a code for Witcher series. They released the Witcher: White Wolf that almost led the company to shut but the release of further series of Witcher saved the company earning them an award of Game of the year awards. They also produced a gaming distributive service that helped the players to find old games. Its main purpose was to provide free games free of any digital managements rights to the players playing the game. This was later further expanded to independent games.

Lead Engine cooperated with CD project to manufacture a role-playing game that was based on the cyberpunk 2020. The game was named as Cyberpunk 2077. It was set to be in a world far into the future of year 2077. Both corporations collaborated and formed REDengine, an exclusive production of role-playing video games. Both teams worked exceedingly hard on studio game and research aid was provided by the AI. CD project has worked hard to preserve old games. They operated with the services to get the required rights and affiliation. A special team is conducted and held responsible to unravel the issues regarding the licensing of the old games. (projekt, 2020)

# 3 Methodology

For creating an HTML, firstly we investigated the basic syntax of HTML. Throughout the whole research the group was in touch with one another using discord. After learning the basic attributes, we went through some examples to create an idea for our own personal website. We held a meeting and discussed our course of action face to face. Then regularly started working on the website together through screen share. So, everyone gave their inputs on how to make the website and learn new syntaxes at the same time.

# 4 Results and discussion

After organizing a face-to-face meeting, we were able to be on the same page. We decided our course of actions for the making of HTML and CSS file. We discussed daily on the discord how we can make our website look more aesthetically pleasing using the syntax. Everyone researched on their own and put forward the collected data during discord meeting. If it was liked and approved, then it was implemented into the website.

# 5 Conclusions and recommendations

The internet of things connects the whole world in a single platform. Not only living but also nonliving things are connected through the internet. It connects people through social communication, business transactions or e-commerce. Internet of things connect all machines with their systems making it easier to operate and work with. These systems collect meaningful and important information from them and is used to enhance the lives of humans. Updating both their productivity and way of living. IoTs is a way of connecting with others in a convenient way. It is a less wastage experience that is also cost friendly and cleaner. And at the same time provide us with a better and more efficient way of life.

# 6 Acknowledgements

This work was researched from all over the internet. From various YouTube videos and websites. The mostly used website was W3schools from which most of the syntax for HTML and CSS file were taken.

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# References

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[2] Tobii 2019, Wikipedia

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