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An Initiative By



Department of Information Technology

#Satyavachan

Success

does not lie in "Results" but in "Efforts",
"Being" the best is not so important,
"Doing" the best is all that matters...

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DESIGNED BY:

Ms. Mudra Doshi



What are Golang Types

Go is a strongly typed language and type is life. This language has rich types and good support for extension of type. Type provides integrity.

In this post I will share some of the primitive types and how Go handles them.

Everything is 0 or 1 in computer and only these 2 values are used to represent any values we want. Arrangement of 0 or 1 tells what is the value.

Take an example of byte value at some memory location:



What is it? You need type information.

If type is int then value is 10, if type is enum then we have some other value.

Type information tells us about value and size for eg if type is Boolean then it tells it is single byte value.

Information about types supported by Go can be found at [Lang Spec Types](#) page.

How to declare variable?

```
var variablename type  
variablename := value // Short declaration
```

Var creates and is initialized with ZERO value of its type. Zero value is very special; it makes code bug-free and clean! No null checks.

Zero value is based on Type so for integer type it is zero, boolean it is false, string it is empty.

Go has some type like int that gets size based on underlying architecture, for eg it will be 4 bytes (i.e. 32 bit arch) or 8 bytes (64 bit arch). This is also a good example of mechanical sympathy to underlying platform.

Casting Vs Conversion

Casting is magic; it allows to convert one type to another implicitly. How many times in Java you lost a value when long/int casting or double/float?

Go has a concept of conversion. You explicitly convert from x to y type and pay the cost of extra memory at the cost of safety.

Ref: https://www.javacodegeeks.com/2019/01/golang-types.html?utm_source=Notification&utm_medium=Web-Push&utm_campaign=Notifications-Java-Code-Geeks

- Mrs. Yogita Mane

The cognitive cloud? IBM rolls out Watson-as-a-service

People who use cloud computing on a regular basis are familiar with the suite of “as-a-service” options: infrastructure-as-a-service, software-as-a-service, platform-as-a-service. IBM is ready to introduce another: Watson-as-a-service.

IBM announced it has moved its cognitive computing system into the cloud to form the Watson Discovery Advisor, allowing researchers, academics and anyone else trying to leverage big data the ability to test programs and hypotheses at speeds never before seen.

Since Watson is built to understand the nuance of natural language, this new service allows researchers to process millions of data points normally impossible for humans to handle. This can reduce project timelines from years to weeks or days.

“We’re entering an extraordinary age of data-driven discovery,” said Mike Rhodin, senior vice president for IBM Watson Group, in a release. “[This] announcement is a natural extension of Watson’s cognitive computing capability. We’re empowering researchers with a powerful tool which will help increase the impact of investments organizations make in R&D, leading to significant breakthroughs.”

https://www.youtube.com/watch?v=qry_zGZFjOc

IBM has been honing Watson’s capabilities over the last three years, reducing its size and upping its power since its famous appearance on “Jeopardy!” in 2011. The Watson of today is drastically different, operating at 24 times its power from Jeopardy while shrinking 90 times smaller. Earlier this year, IBM invested \$1 billion into the project to form the Watson Group, with \$100 million going to entrepreneurs and companies to build applications to run on Watson.

“Watson has demonstrated the potential to accelerate the rate and the quality of breakthrough discoveries.”

“Part of Smarter Cities was working with different municipalities and governments to determine how technology could help them provide better services to their constituents,” Gordon said. “One of the things that became apparent to me was the digital divide between those who were able to use technology and those who were not. Watson, to me, represented the beginnings of computing systems that didn’t require people to conform to technology. So I really thought of Watson as propelling more people into the information economy across all of the ways we help citizens. I think Watson will bridge that digital divide.”

With a combination of power never before released at a scale that is now widely accessible, Gordon believes Watson serves as a tipping point for cognitive computing.

“We are at the absolute beginning of this cognitive era of computing,” Gordon said. “I expect it to go on for the next 50 years. This could be more transformative than when we saw the Internet come forward and drive connectivity. Systems that can learn, systems that we can teach and that can help us not only understand the information around us, but inspire us to be more creative and drive innovation. I think we are just at the very beginning of this, but with our ecosystem and opening it up to the entrepreneurial base, I’m sure the ingenuity of all the people that are going to have the ability to integrate with Watson will build up solutions we’ve never even considered before.”

Ref : <https://www.fedscoop.com/watson-cloud/>

- Mrs. Aditi Malkar

Blockchain / IoT integration accelerates, hits a 'sweet spot'

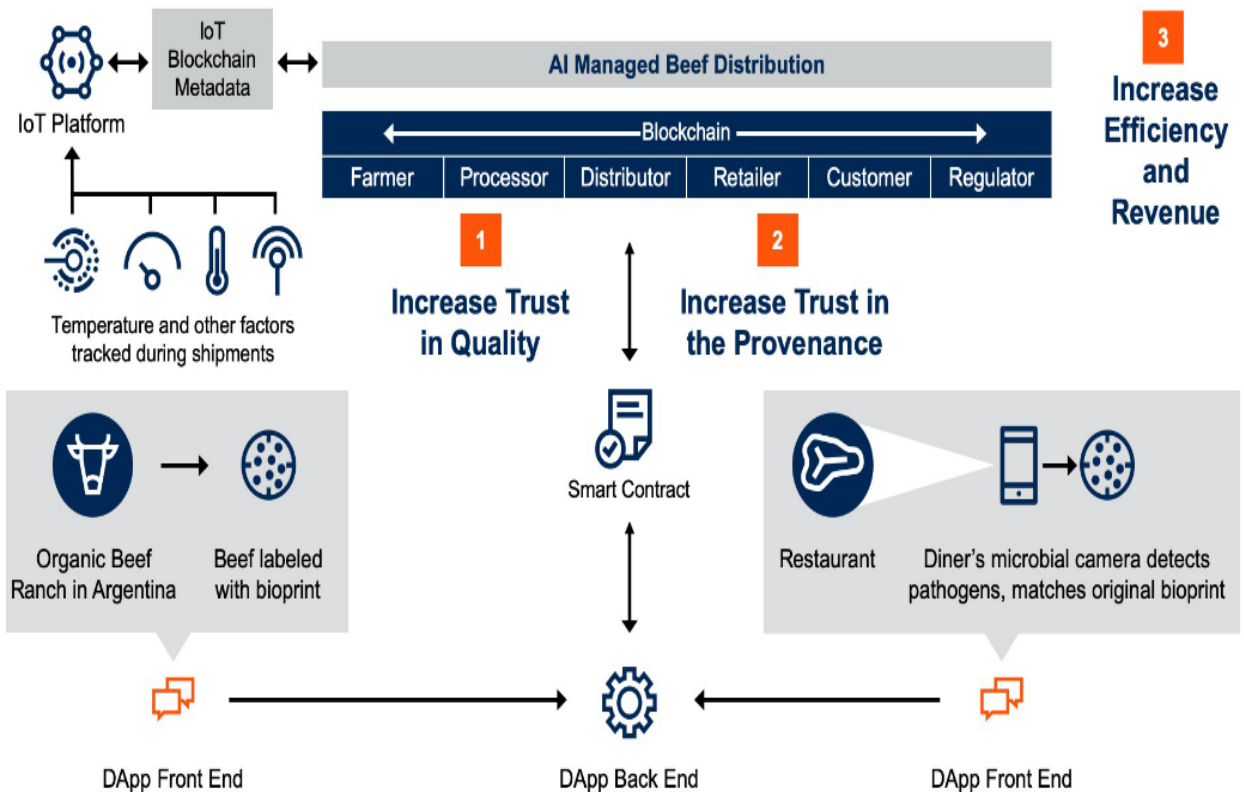
Three-quarters of companies implementing IoT have already adopted blockchain or plan to use it by the end of 2020, an indicator of the growing connection between the two, according to a survey of 500 U.S. companies by Gartner.

While the marriage between the two technologies has been expected to be crucial for industry digital transformation, the adoption rate is happening at a “much faster pace than expected,” Gartner said.

“Among the blockchain adopters, 86% are implementing the two technologies together in various projects,” Avivah Litan, a Gartner vice president and report author, wrote in a blog. She called IoT integration “a sweet spot” for blockchain, the much-hyped distributed ledger technology.

“Blockchain networks have emerged as a promising innovation because of their ability to affirm the integrity of data shared among constituents in multiparty process collaboration,” Litan wrote. “IoT has emerged as a method for bridging the gap between resources (or “things”) and their associated business processes. Integrating IoT and blockchain supports trusted multiparty processes that bridge physical world things to business process computing environments.”

The combination of IoT and enterprise blockchain technologies is still relatively new and faces a variety of technical and business challenges, Litan said. The relative volatility of blockchain implementations involving protocol changes could be a challenge for long-lived IoT devices.



Ref: <https://www.computerworld.com/article/3489503/blockchainiot-integration-accelerates-hits-a-sweet-spot-for-the-two-technologies.html>

- Mr. Jigar Chauhan

10 key trends in electronic payments for 2020

2020 will be a new year for electronic payments. Already payments trends from the end of 2019 point to several key developments. Black Friday, for example, was once the busiest retail day of the year for brick-and-mortar stores. For many retailers this year, though, the foot traffic was disappointing. People are paying for things in less predictable periods and increasingly doing it online. The real Black Friday winners this year were the stores with strong payments providers that let consumers pay how they want.

1. Millennials and Gen Z reshape payments

By 2020, nearly 30% of U.S. consumers will be from Generation Z. Millennials and Gen Z now make up nearly half of the U.S. population. Born between 1981 and 2016, these generations are more tech-savvy than Gen X and Baby Boomers.

Gen Z especially can't remember a time before social media or online shopping. Often panned as impatient and ambitious, these digital natives are driving consumer shifts to mobile shopping and omni-channel retail. Most demand efficiency and immediacy in the services they use.

2. Biometric identification

With the rise of apps such as Google Pay and Apple Pay, better security measures are emerging to address new challenges. Biometric authentication will continue to develop in 2020. Firms looking to implement biometric identification should aim for frictionless systems and focus on usability. Additionally, handling biometric user data poses new challenges on payments apps.

3. Heightened security

As banking and finance face ever more sophisticated fraud, they're constantly trying to stay ahead with systems that are smart enough to outwit the criminals. Many have to balance this while still being easy to use and relevant to the consumer. Security is the key factor in determining the feasibility of any payment method.

4. Code replacing cards

Previously, a user's bank account was recognized through a set of unique digits mentioned on the card. However, after the arrival of EMV technology, more computerized and safer techniques are now in place. With EMV technology, the bank accounts receive codes that change with each transaction to achieve more security. The codes are going to replace plastic cards in the future since consumers want more secure payment systems.

5. Recurring payments

Internet of things (IoT) technology is rising to change the electronic payments landscape as it has proven to create unified payment processes. Just like drivers with RFID sensors can bypass toll booths and pay with a card on file, buyers, like those at Amazon Go stores, will choose their purchases, leave the store and get a receipt via text or email or via an app.

6. Payment testing via AI

Artificial intelligence will keep playing a bigger role in payment-driven decision making, specifically by facilitating payments organizations to examine customer experiences and rank payment testing scenarios. Payment processors and progressive networks have opportunities to present AI into the testing process to help deliver more precise, efficient testing and more efficient monitoring to control fraud.

7. Integration of digital identity

The advance digital identity solutions are going to rise across industries as these solutions help mitigate cyber risks, especially related to electronic payments. Increasing digitalization is leading to an increasing number of cyber-attacks. Online identification, customer authorization, and authentication are critically important for ensuring online payment modes' safety in the digital environment.

8. The mobile revolution

Today in 2019, more than half of the global population owns a smartphone. More than a third use their cell phone within five minutes of waking up in the morning. Internationally, mobile devices rule the total time spent online.

The increase in smartphone usage means that now 11% of online buyers use their phones to buy online. Expectancy follows demand and so the public demands different payment options. They expect to see quicker, easier and clearer ways to make their electronic payments at ease. One of the value-added services predicted by experts is a single view of account information. This is imaginable with a mobile banking app enabling consumers to check all checking and credit card balances at a time.

9. Contactless electronic payments

Banks had started to issue contactless payment cards earlier this year. These cards, embedded with a novel technology called near-field communication (NFC), let consumers just wave or swap their cards near any card reader to make their purchases up to a pre-specified amount. As merchants are updating their payment hardware to keep pace with this trend, the contactless payment mode is expected to go beyond the contactless cards. The same technology would enable merchants to accept mobile wallets such as Apple Pay, Samsung Pay, Google Pay or payment via fobs, watches, or wearables.

10. Wearables

Other exclusive payment channels like wearables are poised to change the payments landscape. With the enormous widespread adoption of smartphones, payment applications, and mobile banking, wearables provide easy access to these applications, anywhere at any time. Real-time ease is key. Consumers can use contactless payments for normal purchases, particularly for low-value transactions, quickly and safely. Alternative payment methods help to uplift banks' customer experience via faster, seamless and integrated transactions.

Ref: <https://espeo.eu/blog/10-key-trends-in-electronic-payments-for-2020/>

-Mrs. Jesleena Gonsalves

Understanding the 5 Levels of Personality

Tell Yourself You Have Confidence and Believe It

Repeat affirmations such as “I believe in myself” every day.

Your thoughts become words and your words become your actions. If you continue to tell yourself that you believe in yourself, eventually you really will believe in yourself.

You can imagine your personality by thinking of a target with concentric rings. Your personality is made up of five rings, starting from the center with your values and radiating outward to the next circle, your beliefs and values in life.

1. Believe In Yourself

Your values in life determine your beliefs, about yourself and the world around you.

If you have positive values, such as love, compassion, and generosity, you will believe that people in your world are deserving of these values and you will treat them accordingly. When you believe in yourself and chose to be a good person you will find yourself to be more positive and successful in life.

2. Set Expectations and Know Your Values in Life

Your beliefs, in turn, determine the third ring of your personality, your *expectations*. If you have positive values, you will believe yourself to be a good person.

If you believe in yourself to be a good person, you will expect good things to happen to you. If you expect good things to happen to you, you will be positive cheerful, and future-oriented. You will look for the good in other people and situations.

3. Attitude: Expect Good Things to Happen

The fourth level of your personality, determined by your expectations, is your *attitude*. Your attitude will be an outward manifestation or reflection of your values, beliefs, and expectations.

For example, if your value is that this is a good world to live in and your belief is that you are going to be very successful in life, you will expect that everything that happens to you is helping you in some way.

As a result, you will have a positive mental attitude toward other people and they will respond positively toward you.

You will be a more cheerful and optimistic person. You will be someone who others want to work with and for, buy from and sell to, and generally help to be more successful.

4. Be a Good Person through Your Actions

The fifth ring, or level of life, is your *actions*. Your actions on the outside will ultimately be a reflection of your innermost values, beliefs, and expectations on the inside. This is why what you achieve in life and work will be determined more by what is going on inside of you than by any other factor.

5. Action Exercise

Make a list of your three to five most important values in life today.

What do you really believe in and stand for? What are your values in life? What qualities are you best known for among the people who know you? What do you consider the most important values guiding your relationships with others in your life?

Ref: <https://www.briantracy.com/blog/personal-success/believe-in-yourself-and-boost-your-self-confidence/>

-Mrs. Rovina Dbritto

Announcement



Every student is interested in one particular domain;
hence he/she has good knowledge of that domain.

Hence, to share and expand our knowledge - ITSA present..

Each One Teach One

Each One Teach One

is a One Semester Long Free Teaching & Learning Program that will conduct lectures taken by our own students of TE & SE IT. These lectures will be introductory lectures of 2-3 hours for the SE & TE Students that will cover major topics like Machine Learning, Data Science, Web/App/Game Development and many more.

There will be a limitation on the number of students who can attend these lectures. However, the students who'll register to *teach* will be given the first priority to attend these lectures.

Registration Link

https://docs.google.com/forms/d/e/1FAIpQLSfPQNNKBLhgJy-1m50FdObyo5DxItsHLA9MHBh_21f3fyqU8w/viewform?vc=0&c=0&w=1

5 Ways to Prevent Stress Buildup

- 1. Balance responsibilities (like schoolwork) with activities you enjoy (like relaxing or spending time with friends).** It's all about balance: all work and no play is bad. But if your schedule is so crammed with activities that there's no time for homework, that'll stress you out too.
- 2. Manage responsibilities.** Use a calendar or planning app to keep track of assignments, chores, practices, and other obligations. Of course, planning is no good if you don't actually *do* what you plan: Managing stress also means regular studying, keeping on top of assignments, and overcoming procrastination. Take time to reflect a bit every day and think about how things are going. What do you need to work on? Do? Make time for?
- 3. Eat healthy foods.** What you eat affects your mood, energy, and stress level. Eating healthy doesn't mean avoiding all treats — it goes back to that balance thing again. It's OK to treat yourself to ice cream occasionally if you ate a salad or turkey on whole wheat for lunch. But if ice cream and sweets are your main source of fuel, you're likely to crash or feel cranky — and stressed!
- 4. Get proper sleep.** This may seem like a no-brainer. After all, who doesn't love to sleep? But getting the right amount of sleep is actually something we need to focus on because it's easy to let homework, talking to friends, or binge watching get in the way of sleep — no matter how much we want to catch those ZZZs.
- 5. Make time to exercise every day.** It's hard to feel anxious when you're taking deep breaths on a run, feeling the rush of a downhill bike ride, or playing a pickup game with friends. Exercise doesn't just take our mind off of stress; it releases chemicals in our brains that make us feel better.

Ref: <https://kidshealth.org/en/teens/stress-tips.html>

-Ms. Mudra Doshi

Short Term Training Program on Developing and Managing IT Infrastructure with DevOps

The Department of Information Technology, Universal College of Engineering, had organized a ISTE approved Short Term Training Program (STTP) on “Developing and Managing IT Infrastructure with DevOps” scheduled from 9th December 2019 to 13th December 2019. Total 10 staff members of the Department of Information Technology and Department of Computer Engineering had participated in the STTP.

This STTP was conducted by Mr. Sandesh Patil (Technical head in Haplotech IT Solutions LLP, Goregaon) and Prof. Mahendra Mehra (Assistant Professor at Fr. Conceicao College of Engineering, Bandra).

Day 1

The inauguration of the STTP was done in the presence of Dr. J. B. Patil (Principal) in Lab E317 at 9.30 a.m. The speaker, Mr. Sandesh Patil, was introduced to the participants by Mr. Jigar Chauhan. The session started at 10 a.m. The topics covered on day 1 were Introduction of Linux commands, hands on of basic and advanced Linux commands, hands on of installing packages on ubuntu Linux.



Day 2

The speaker for Day 2 was Mr. Sandesh Patil. The session started at 10 a.m. The topics covered were hands on of XAMPP installation, hosting a web application on XAMPP and connecting to MySQL via PHP.

Day 3

The speaker for Day 3 was Prof. Mahendra Mehra. The session started at 10 a.m. The speaker was introduced to the participants by Mrs. Megha Naik. The topics covered were Introduction to Devops, Docker and installation of Docker.

Day 4

The speaker for Day 4 was Prof. Mahendra Mehra. The session started at 10 a.m. The topics covered were Puppet, Puppet agents, Puppet manifests and benefits of Puppet.

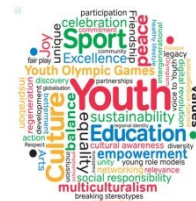
Day 5

The speaker for Day 5 was Prof. Mahendra Mehra. The session started at 10 a.m. The topic covered were Ansible and Configuration Management using Ansible

The session ended at 3 p.m. Later, a short valedictory function was conducted to thank the speaker.



Upcoming Events



Aurora- Sports & Cultural Event

Event will be conducted from 11th January 2020 to 18th January 2020. There are different sports & cultural events some are as follows,

Sports Events

1. Cricket
2. Kabaddi
3. Kho-Kho
4. Dauchball
5. Tug of war
6. Carrom
7. Chess etc.



Cultural Events

1. Fashion Show
2. Drama
3. Dance
4. Singing
5. Debate
6. Quiz
7. Instrumental
8. Minute with Twist
9. Cooking without Fire
10. Standup Comedy
11. Poster Making
12. Beat Boxing
13. Clay Modeling
14. Rangoli
15. Mehandi Designing etc.

Convocation Ceremony on
4th January 2020.



Hack-Stomp on 6th & 7th
February 2020.



Scan for previous edition

You can also send your articles to the following email id's:
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