SmartQA Wisdom

ON
PERSONAL GROWTH

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STAG Software

Tap into your potential with SmartQA Wisdom on Personal Growth

Discover how to evolve into a confident, growth-oriented leader in the ever-evolving world of software assurance and testing. This insightful guide explores:

- **What is growth?** Redefine success by building inner strength and cultivating confidence to tackle challenges and influence outcomes.

- **Lead to grow:** Transition from managing tasks to leading people and fostering innovation within teams.

- **Leadership lessons from the wild:** Draw inspiration from nature with profound lessons on collaboration, decision-making, and adaptability.

- **Evolve with creativity:** Shift focus from productivity to creativity and unleash your potential in the age of AI and automation.

- **Cultivate creativity:** Practical tips to enhance innovative thinking and achieve meaningful results.

- **Reinvent yourself:** Actionable steps to stay relevant in the fast-paced QA industry.

- **Traits of exceptional testers:** Learn the 25 hallmarks that define a growth-oriented QA professional.

Empower your career, amplify your leadership, and unlock your creative edge. Let this guide inspire your journey toward personal and professional transformation in the world of Smart Assurance!

About the author

Thiruvengadam Ashok is the CEO of STAG Software Private Limited & Co-Founder of Pivotrics, based in Bengaluru, India. Ashok has dedicated his career to the pursuit of quality assurance in software, continuously evolving his approaches to match the needs of modern systems. He is the creator of HyBIST, an innovative approach to SmartQA that has revolutionised how teams approach hypothesis-driven testing.

Ashok's professional life is deeply intertwined with his personal philosophy. A passionate ultra-distance runner and long-distance cyclist, he applies the principles of endurance and exploration to his work, constantly seeking out new ways to improve software quality. He is also an avid wordsmith, using his love of language to weave both poetry and technical innovation into his life's work.

He holds an M.S. in Computer Science from the Illinois Institute of Technology, a Bachelor's degree in Electronics and Communication Engineering from the College of Engineering, Guindy, and a Postgraduate Diploma in Environmental Law from the National Law School of India University, Bangalore. His life maxim—"Love what you do & Do only what you love"—is reflected in everything he undertakes, from professional projects to personal passions.

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WHAT IS GROWTH?

What is growth? Is it money, position, power or the confidence to get anything done? Growth is not just knowing more, it is about deep understanding aided by reflection that allows us to assimilate. Growth is not merely external, it is building inner strength, to influence positively.

In conversations with test professionals I come across questions that relate to career growth – "How do I grow in testing? What should I do to grow? What areas in testing should I pursue to grow quickly? ...". These are interesting conversations as there are no specific answers.

Let us dig a little deeper to understand what career growth may mean. Is growth about earning more money? About better designation? Or more 'power' in terms of larger project/ team size...? I bet your answer will be "All of these". Hmmm, these are outcomes of growth, but the question still remains – "What is growth?". Is it deeper knowledge? Or skills/abilities? Or is it the confidence to get anything done?

I would like to believe that the last one is most appropriate. It is about having the confidence of getting anything done. If you can handle stuff that is more fuzzy, difficult, constrained, large, with huge expectations, then you grow faster and higher.

It is not just doing work, it is about getting work done. It is about being a leader. Take a minute and reflect. A young baby needs support to get things done, as he grows, he manages to be self-sufficient. As he becomes a young adult, he is able to manage others and later as an adult when he establishes his family, he leads, not just manage.

LEAD TO GROW

As you grow this is what happens : Managing yourself –> Managing others(or things) –> Leading (others/things). The ability to "do", "manage doers" to "leading doers" is what defines growth. Initially it is about managing, later evolving into leadership.

Leadership is about influencing others. It is about believing in yourself and not really care about what others think. A far cry from being dependent on what others think about you to figure out if you are good. It is about having belief and confidence in yourself. It is not about 'toeing' the line, it is about leading. It is not just agreeing to other's view, it is about having healthy arguments to put forth your views/thoughts.

Bodily growth cannot happen when you just eat more, it happens only when the food is digested and assimilated. Likewise, it is not about just knowing more, it is about deep understanding aided by reflection that allows us to assimilate. This results in more than just knowing, it is about forming heuristics as when to/not-to apply, akin to absorbing and purging, resulting in one to becoming confident in the application of knowledge.

Growth is evolution and evolution is "Add/Modify/Delete". Visible external growth is "Add", the accumulation of mere knowledge. Real 'internal' growth is "Modify/Delete", the assimilation that changes the internals, and purgation, the "Delete" that discards old views/ideas, strengthening you from inside. Growth is not merely external, it is building inner strength.

With inner strength comes confidence and the power to influence. To influence the project team we work with. To influence the product we are building. To influence the company where we work. To influence the customer who uses our product. To influence the test & software engineering community.

The expanding spheres of influence :

Individual "I" –> Project team "US" –> Product "OURS" –> Company "US & OURS" –> Customer "THEM" –> Community "WE".

Now you do not care about what others think. You have grown. Stuff happens. You do not 'just do actions and get things done'. You deliver 'business value'. You feel good. And possibly get noticed. Anyways you enjoy what you have done. And the wonderful outcomes of growth happen.

LEADERSHIP LESSONS FROM THE WILD

Want to be a successful leader? Let animals be your guide. Assemble varied skills to build a great team. Let good techniques and methodical action unleash the power. Watch progress and steer continuously. Be confident. Make decisions. Enable each individual to unleash their full potential. Finally enjoy the journey.

Many years ago, I visited the Masai Mara, a stunning game reserve in Kenya. Here, animals roam freely in their natural habitat, offering profound lessons in leadership.

The Lions

On the savanna, a lion feasted on a freshly killed wildebeest, while a group of hyenas waited patiently nearby. Once the lion finished and moved away, the hyenas eagerly approached, using their powerful jaws to crush even the bones. Elsewhere, vultures squabbled over scraps left behind by a lioness. In nature, every creature has its role, ensuring nothing is wasted–each contributing to the endless cycle of life.

Leadership lesson - It takes multiple skills to get a job done well. Each facet of work requires varied intelligence and power; understanding this and abiding your time patiently is key to being successful. So, who is the Lion(ess), Hyena, Vulture in your team? Each one of them is important, there is nothing superior or inferior.

"The value of patience and diverse contributions within a team"

The Leopard

High up in the branches of an ancient tree, a leopard had secured its prize–a young waterbuck. The carcass rested perfectly balanced, legs dangling as the predator worked with precision. With its sharp canines, the leopard tore into the rear, pausing occasionally to adjust its meal on the branch. Though grim, the scene revealed the leopard's meticulous nature, a master of its craft in the wild's theatre of survival.
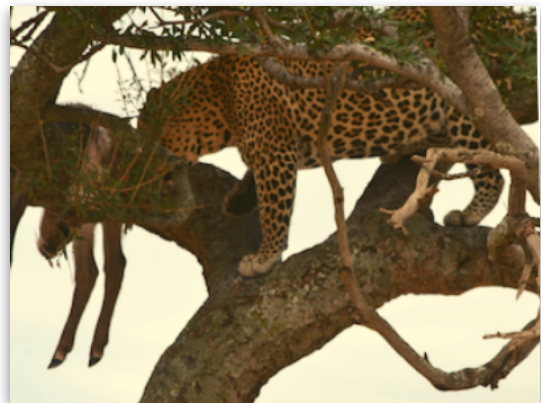
Leadership lesson - The Leopard is a very powerful animal, with its sheer speed and power it can snare any animal. To ultimately accomplish its goal of satisfying its hunger, it must secure the dead animal, that it does dragging the animal up the tree and then eating it by doing it methodically, tearing from the rear. What do we learn from this? In addition to having a

powerful team, it is necessary to employ powerful techniques and great processes to ensure that the job is well done. Power is best extracted by using good techniques and then going about it systematically.

"The importance of preparation, strategy, and leveraging individual strengths."

The Giraffe

Amid the golden savanna, a herd of giraffes moved with unmatched grace, their towering frames silhouetted against the sky. As they nibbled peacefully on treetop leaves, their elegance was mesmerising. One curious giraffe confidently approached our vehicle, pausing to study us with calm, fearless eyes before striding away in its distinctive, unhurried gait. Its unique walk—both legs on one side moving together—was a gentle reminder of the giraffe's extraordinary design in nature's masterpiece.

Leadership lesson - The majestic appearance oozing confidence, fearless attitude, grace and elegance are traits that make a leader successful. And the team will do anything to ensure that the leader stands tall always.

"The hallmark of leadership - standing tall and facing challenges"

The Zebras

On the endless African savanna, zebras dazzled with their striking black-and-white stripes, blending beauty with survival. Though they were prime targets for lions, their sharp senses—keen sight, acute hearing, and a powerful sense of smell—kept them alert to danger. At the first hint of a predator, they bolted with agility, their strong legs not just for running but capable of delivering a deadly kick. Graceful yet formidable, the zebras thrived in nature's delicate balance of predator and prey.

Leadership lesson - To survive/course-correct, it requires one to continuously measure (aka smell/watch) and respond nimbly to steer to safe places. Not only is sufficient to know the danger, but it is imperative to have enough power to move away quickly.

"The vigilance and ability to protect the team from unforeseen challenges"

The Hippos

Beneath the calm surface of the water, hippos lounged lazily, looking like the picture of tranquility. Spending their days relaxing in pools and grazing on grass, they seemed harmless. Yet, these gentle giants hold a deadly secret–they are among the deadliest animals to humans. Fiercely protective, a hippo's powerful bite can be fatal, reminding all who cross their path that even the most peaceful waters can hide danger.

Leadership lesson - Each one of us possess enormous power. Dormant most of the time, the key is in unleashing it. A great leader should be able to spot this in others and enable them to unleash it.

"Unlock one's dormant potential"

The Warthog

Across the open plains, a group of tusked herbivores dashed about with boundless energy. These relatives of pigs seemed to run for the pure joy of it, stopping abruptly only to sprint off again moments later. With no predators in sight, their playful antics brought the landscape to life, a delightful display of freedom and unbridled spirit in the wild.

Leadership lesson - Explore. Be curious. Enjoy. To unleash your full potential, you need to be unbounded and enjoy the flow.

"Enjoy the journey!"

The Wildebeest

At the Mara River, a herd of wildebeests stood in tense deliberation–should they cross or not? Across the water, crocodiles lay in wait, their menace barely hidden beneath the surface. The wildebeests hesitated, one nudging another into the water, only for it to retreat. A few ventured in briefly, then stopped, their indecision rippling through the group. Finally, one fed-up wildebeest turned back, climbing the embankment to higher ground. One by one, the others followed, abandoning the crossing. The herd, once paralysed by doubt, moved decisively away, led by the boldest of them all.

Leadership lesson-   We all suffer from indecision and do possess herd mentality. A good leader takes decision and confidently goes ahead and the team follows. Not all decisions may indeed be right, but taking a decision is indeed superior to not doing anything.

"*The power of decisive action and inspiring trust*"

Summary

Good leadership is about collaboration, adaptability, and leveraging unique strengths of each individual. Assemble varied skills to build a great team. Let good techniques and methodical action unleash the power. Watch progress and steer continuously. Be confident. Make decisions. Enable each individual to unleash their full potential. Enjoy the journey.

Hakuna Matata! (Don't worry, be happy in Swahili.)

EVOLVE WITH CREATIVITY

Efficiency is a given now , high productivity aided by intelligent systems will become a norm, so what is our role? In this age of automated & continuous testing, efficiency gains are given and productivity is on the increase. In this era of AI systems, it is time we shift from productivity to creativity.

Over the years there has been an interesting shift in how we engineer software. Starting with emphasis on process systems in the 90s to ensure consistency and repeatability, we moved on to enhancing efficiencies with tools and Agile processes. Now the focus has shifted to productivity and value by fostering re-use(components, libraries, patterns, frameworks etc), cross-functional teams and more recently, using AI systems.

Efficiency is a given now, high productivity aided by intelligent systems will become a norm, so what is our role? The future is about creativity, a lot of people say.
In testing with extreme focus on automated & continuous testing, efficiency gains are given and productivity is on the increase. With systems built using multiple frameworks, deployed in various environments, with high business criticality, high expectations of users, the demand of future demands tech savviness and serious creativity – 'SmartQA , that implies how to get work done efficiently with value focus driven from creative angle'.

Here is a short summary from two interesting articles on the Efficiency -> Productivity -> Creativity shift.

Focus on productivity, not efficiency

In the article Focus on productivity, not efficiency Aytekin Tank says Ford reduced the manufacturing time of car from 12 hours to 2.5 hours by improving efficiency, breaking the company's Model T automobile assembly into 84 distinct steps, with a worker specialising in a task and using power-driven machinery to do the work.

The tide changed in 2015 from being focused on productivity over efficiency. Efficiency is about doing more with less whereas productivity is about doing more with the same.

He then shares four tips on how to lead an organisation with productivity:

1. Team productivity > individual efficiency – Cross-functional teams work on one project at a time.

2. Get out of the way – Stop interrupting the workflow of team members with meetings that don't necessarily require their presence.

3. Maximise your MVPs – Do not box talented individuals placed in organisational roles that limit their effectiveness.

4. Lose the "more is better" mentality – Focus on impact not staying busy

Creativity is the new productivity

In the age of A.I and machine learning, just being more productive won't cut it. The future belongs to the creatives says Scott Belsky in the article Creativity Is the New Productivity. In his picture of Human Productivity Parabola , he says we have now passed the point – call it the "Productivity-Creativity Inversion" – where machines (algorithms, robots, etc.) have become a better investment for future productivity gains than humans. At this point, we as humans are better off spending our energy on creativity than on productivity.
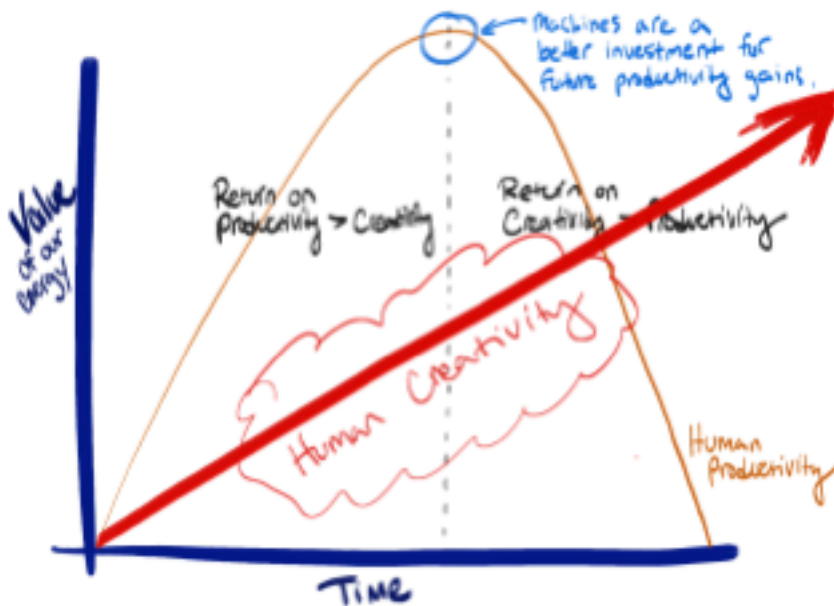
Picture from Creativity Is the New Productivity

Productivity, previously scarce and valuable, is now abundant and commoditised, and hence we need to creativity, a truly scarce resource whose value is on the rise, he says. He depicts this as a picture consisting of three phases – The Era of Productivity Scarcity, The Era of Productivity Abundance, and The Era of Creativity.
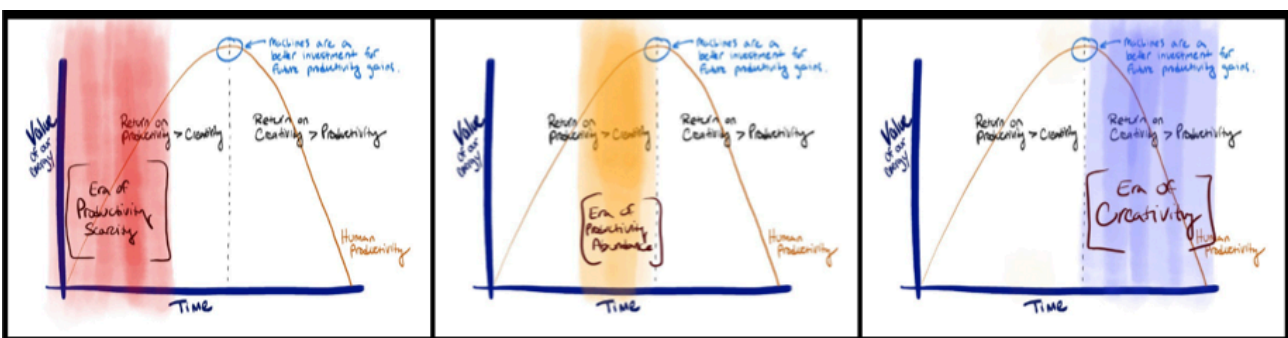
Picture from Creativity Is the New Productivity

He continues on to state that AI will liberate creativity, by allowing machines to take over the mundane tasks, enabling us to be more creative.

Shift Right to Shift Left "Being creative"

Testing is not a mundane job of evaluation bereft of fun. It is not a clinical act of evaluation that is done by machines. Our job is not just to write scripts and feed these machines. It is true that in these times, the focus is on speed, on the act of evaluation. Yes, a machine executes tests really fast and is useful in continuous assessment. In a continuous development scenario, it gives us a sense of confidence that we are marching forward and nothing is broken. Remember that the ability to trust that it is not broken is a function of test scenarios/cases, normally the result of intelligent thinking.

With machines become more intelligent enabled by AI, it is time we focus on creativity to think differently and exploit machines for its intelligence. A focus in shifting to using right brain more will certainly help in the goal to "Shift Left" – that of prevention or doing less. Good testing demands a great logical ability to dissect, decompose, analyse, synthesise, correlate, question, hypothesise, experiment, ascertain and make appropriate choices. It is a left brain activity. Tools then transform them to scripts so that they be used in an unattended mechanistic manner to reap significant benefits.

Having exploited the logical abilities and the technology to do well and faster, what next? Testing is not just about finding issues, it would be valuable if this can help prevent issues or find it earlier before issues fan out. This is what we call as Shift Left, the ability to move left-ward in the software dev cycle to find earlier, ideally prevent. Today automation is seen as an enabler here too with the process, forcing one to think and come with scenarios/ scripts before code commences or very immediately after code so that whatever is coded is validated. Given that tools are available in plenty, does not imply they have to be used every time, as it takes effort to script and maintain it.

Minimalism and simplicity are popular today, these can help in doing less by heightening sensitivity to aid in prevention and leveraging existing assets. Being creative enables sensitivity, the ability to not be pre-conditioned, to be random, to see beyond the visible and to come up with interesting possibilities. We know that covering everything from all angles seems impossible, certainly costly in terms of time, effort and money. Yes, we do resolve to use the logical ability to analyse risky areas and appropriately channel our energies.

CULTIVATE CREATIVITY - TIPS

A fertile right brain can cut through the chasm rapidly and enable significant benefits beyond the logical right brain. What does it take to cultivate a fertile right brain? What are the ingredients to fertility?

1. **Constraints** – Setting up constraints enables creativity. When we are faced with pressure, we find means to do less, do quick and do well. It is like the survival instinct kicking in. Testing in short sessions helps in here.

2. **Write less** – Writing long sentences as part of note-taking or worse still using software to document outcomes distracts you from exploiting the full power of creativity as we become logical in forming sentences and ensuring its correctness. Writing tersely in short phrases. Colours – Stimulate the visual senses too. Use colour sheets, pens, pencils, highlighters. Go beyond the black and white.

3. **Be non-linear** – Sketch, mind-map, draw to express. Let not the act of writing be left-right & top-bottom deaden your senses. Sharpen creativity. After all minimalism is a constraint forcing us to go beyond to express sharp and crisp.

4. **Plan, yet stray** – Before commencing a session, draw up a quick plan as to what you want to accomplish. As you go about the work, stray when you find something interesting, explore and improve understanding. Be sensitive to the clock though.

5. **Be in flow** – Enjoying the work enables one to stay immersed in the work, and that is where time stops, a state of being in the 'flow'. This is when the creative side is most fertile. Sharp and observant, super efficient, light and nimble a state when the work and the worker become one.

6. **Favour paper** – During a session, to take notes, to jot down observations/questions, pen down to-do-actions, adopt a lightweight method. Using paper to do this is the easiest, also using Post-It notes, white board is super light, enabling one to stay immersed in the work and not be bothered about the act of writing/drawing. Using a heavy weight word- processor or a spreadsheet IMHO is a no-no, as it is seriously high friction. If you prefer software, use a light weight note taking software.

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SmartQA Wisdom on Personal Growth

Reinventing for Growth

To remain relevant, QA professionals must embrace reinvention. Here are 12 actionable tips:

1. Be tech-savvy: Understand the inner workings of systems, including integrations and technology stacks.

2. Master the "-ities": Beyond functionality, focus on usability, compatibility, performance, and security.

3. Deliver value: Shift from performing activities to producing meaningful outcomes.

4. Embrace automation: Adopt tools and frameworks to accelerate testing processes.

5. Be agile: Adapt quickly to changing requirements, emphasising impact over volume.

6. Cultivate a testing mindset: Move beyond tasks to a philosophy of quality and continuous improvement.

7. Learn from other disciplines: Draw inspiration from diverse fields such as arts, sciences, and humanities.

8. Prevent, don't just detect: Focus on early-stage interventions to minimise issues downstream.

9. Align metrics with business goals: Ensure your work contributes to measurable business outcomes.

10. Unlearn and relearn: Let go of outdated practices to embrace new methodologies.

11. Abstract and visualise: Simplify complex systems to craft adaptable strategies.

12. Broaden your scope: Contribute across the lifecycle, from development to deployment.

SMARTQA WISDOM ON PERSONAL GROWTH

HALLMARKS OF A GROWTH-ORIENTED QA PROFESSIONAL

Great testers exhibit these traits:

1. Be disciplined, but stay creative.

2. Ask questions and find answers.

3. Be helpful, but avoid doing others' work for them.

4. Point out mistakes, but don't assign blame.

5. Find bugs and help get them fixed.

6. Communicate clearly and crisply.

7. Showcase the value of your work.

8. Balance routine tasks with constant innovation.

9. Stay steadfast, yet remain flexible.

10. Observe well and notice hidden details.

11. Stay focused while maintaining a broad perspective.

12. Understand the big picture while knowing the finer details.

13. Think like an end user, while engineering solutions.

14. Analyze issues like an engineer while considering user perspectives.

15. Automate what you can, but focus on what truly matters.

16. Document succinctly and work voraciously.

17. Focus on finding issues and preventing them.

18. Do less, but accomplish more.

19. Engineer code to enable finding issues efficiently.

20. Develop an end user's mindset, an engineer's brain, an eagle's eyes, and a business person's head.

21. Continuously read, observe, analyze, explore, experiment, and validate.

22. Analyze engineering data quantitatively and present business impacts qualitatively.

23. Strive for clarity and visualise flows to spot anomalies effectively.

24. Never settle–constantly evolve and challenge the status quo.

25. Learn continuously and unlearn where necessary.

ENVISIONING THE FUTURE OF PERSONAL GROWTH

The future is bright for those willing to evolve. As AI and automation take over repetitive tasks, QA professionals need to focus on creative problem-solving, strategic thinking, and holistic impact. Continuous learning and adaptation is essential to thrive in this dynamic landscape.

Personal growth is the foundation of excellence in Smart Assurance. By embracing change, cultivating leadership, and fostering creativity, QA professionals can unlock new levels of impact and fulfilment. Together, we can shape the future of QA and inspire the next generation of leaders.

The HyBIST Approach to SmartQA - MASTERCLASS

Testing is deep probing to seek clarity and in the process uncover, preempt issues rapidly. The HyBIST approach enables designing smart probes and probing the system smartly.

https://smartqa.academy/courses/smartqa-using-hybist

doSmartQA - AI based Smart Probing Assistant to interrogate, hypothesise issues, design & evaluate user story or a set of stories in a sprint rapidly. An assistant for smart session-based testing based on HyBIST.
Download personal edition from <u>here</u>

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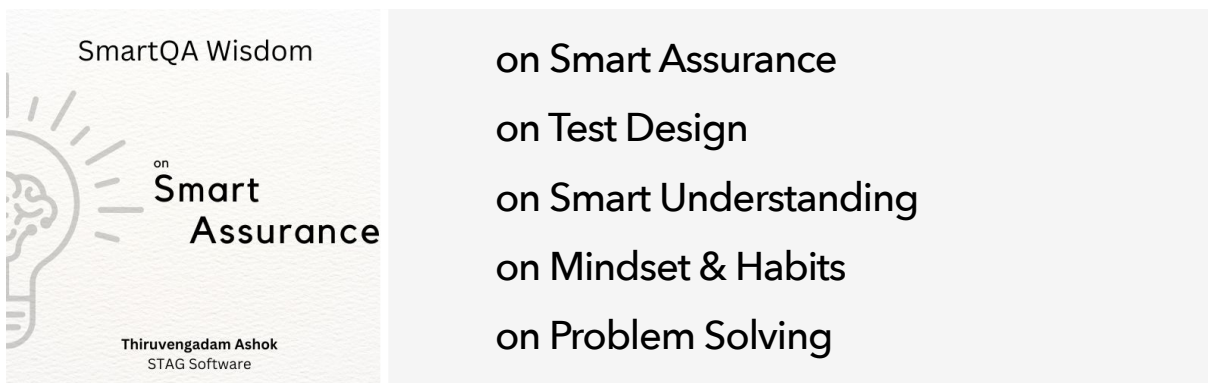www.stagsoftware.com/subscribe

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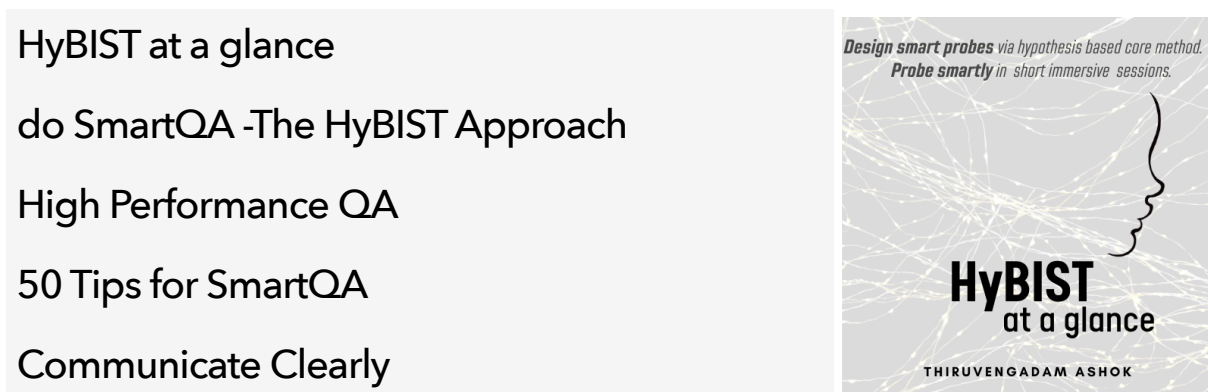www.stagsoftware.com/subscribe

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