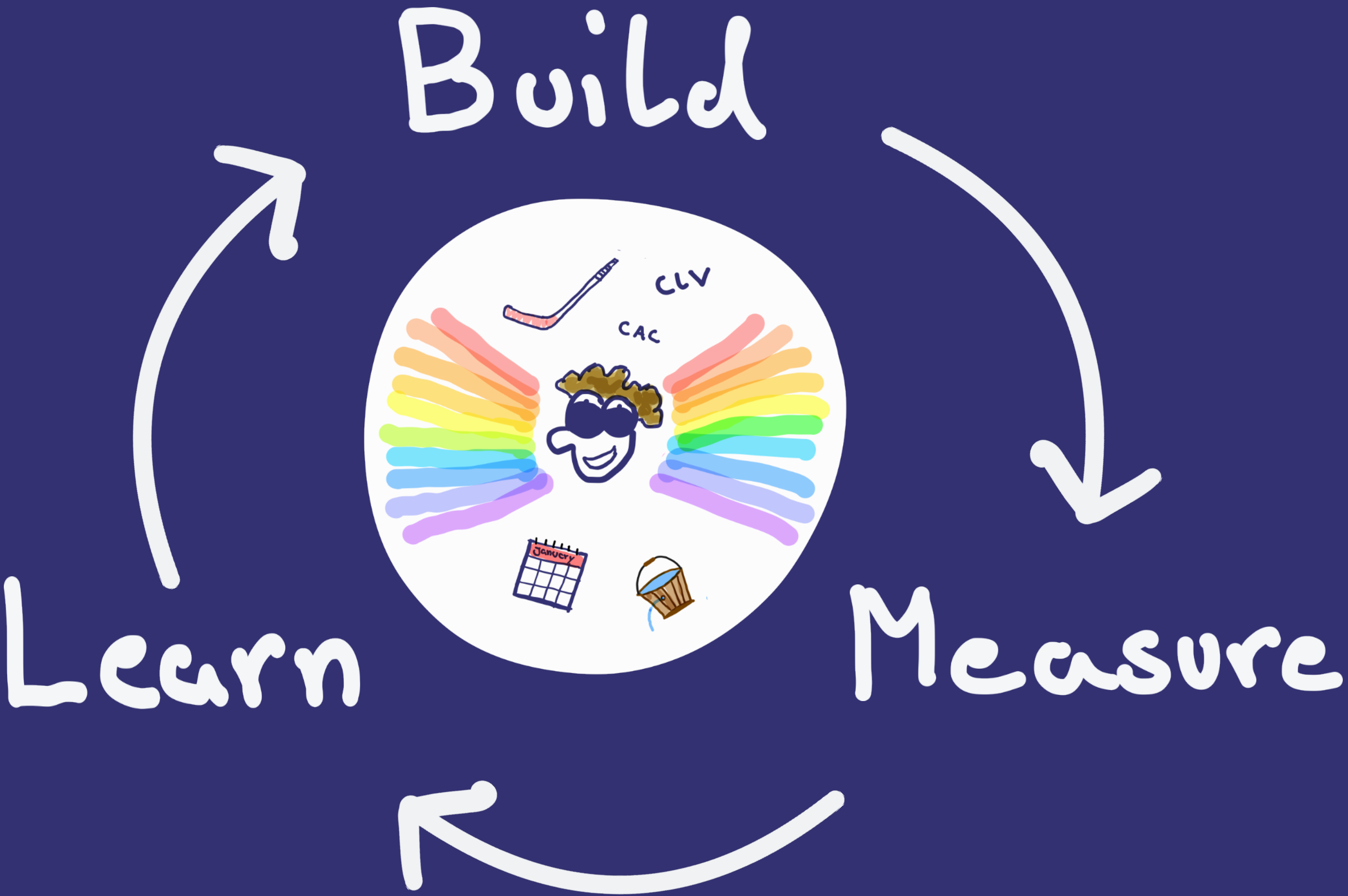
DevOps for SaaS startups



DevOps for SaaS startups

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Getting away with software in 10 steps

Think big,
Start small,
Scale fast

The Startup Way is trending as an adventure everyone should try at least once, if for nothing else than the right to wear the "I Eat Failure For Breakfast" t-shirt.

The majority of startups are essentially software businesses, that is; the product is software. But typical entrepreneurs and innovators are first and foremost business developers and not necessarily tech-savvy, which puts a lot of startups in the awkward position that they are trying to get away with software, without knowing much about it.

Here's what entrepreneurs need to know about DevOps if they are going to get away with software.

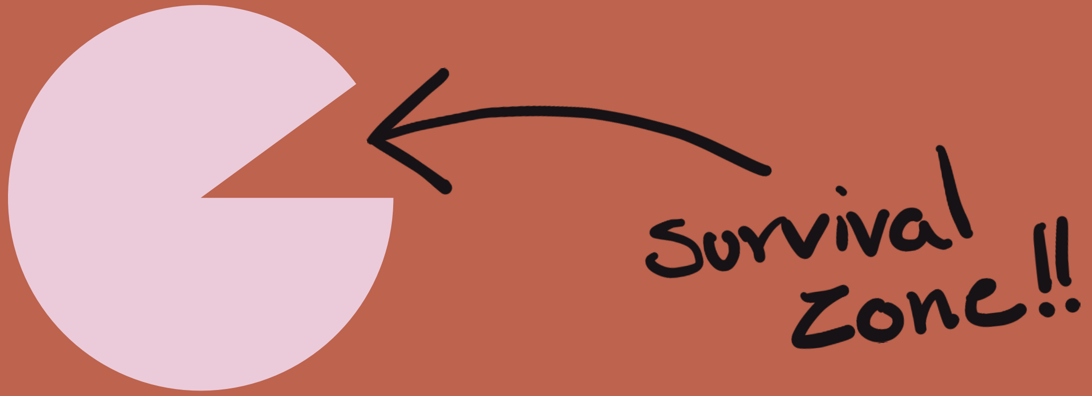
9 out of 10 startups fail

And it's okay!

Some of them fail because the idea didn't have the right market fit - no worries; these startups are meant to die.

However, a substantial amount of startups fail because the software can't carry the weight of the scale-up that follows a successful market fit or because the quest for the fabled market fit shoots in so many experimental directions that the software underneath can't sustain the Design Thinking approach. This is worrying; these startups could live - if only the entrepreneurs understood the nature of software..

If you are an Entrepreneur in a startup, you'll get insights into *How To Get Away With Software*.



Tip 1

Build the right team

Is your CTO a junior developer? Do you have a strategy for hiring the talent you need?

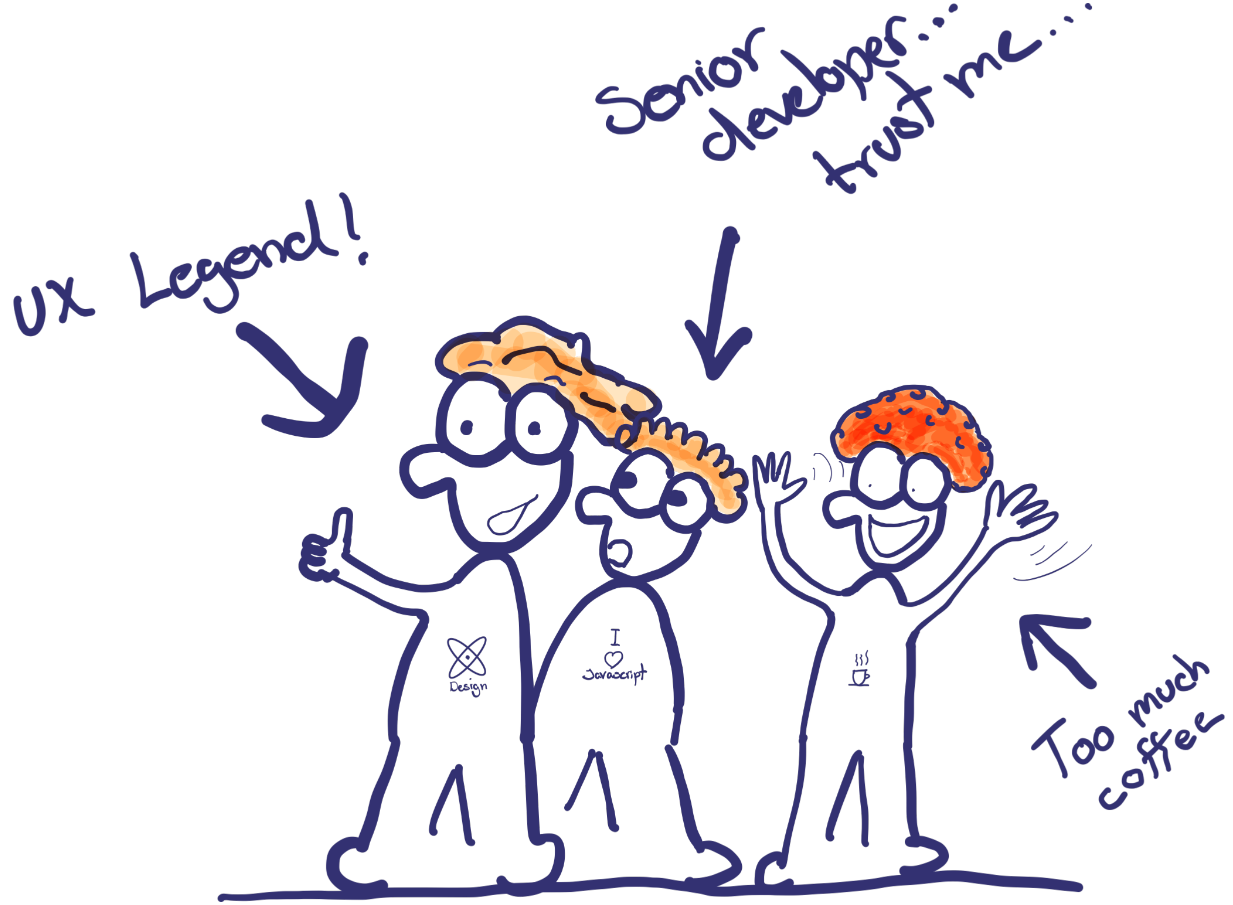
It's an undisputed fact that software is eating the world. Your gaze has to wander far to find blue oceans on which to embark new disrupting startup adventures. SaaS products are popping up everywhere and the battles for customers are fought on the battlefields of the best user experience, the sleekest design, best communities, and most benefits.

Development and UX resources are scarce. They are hard to find, expensive to hire, volatile and notoriously hard to retain. Essentially they are like rockstars.

Even if founders with CTO potential are hard to find, it doesn't mean that it's ok to promote the first part-time student developer to CTO on the basis that it's the only tech-savvy person you can find.

Have a strategy for how you attract the rockstars you need. If the band can't play, there are no concerts. No concerts; no sold tickets. The core team should have at least one experienced tech-savvy person onboard to take the lead on software and UX development.

Your first part-time junior developer is not your CTO!



Tip 2

Automate everything

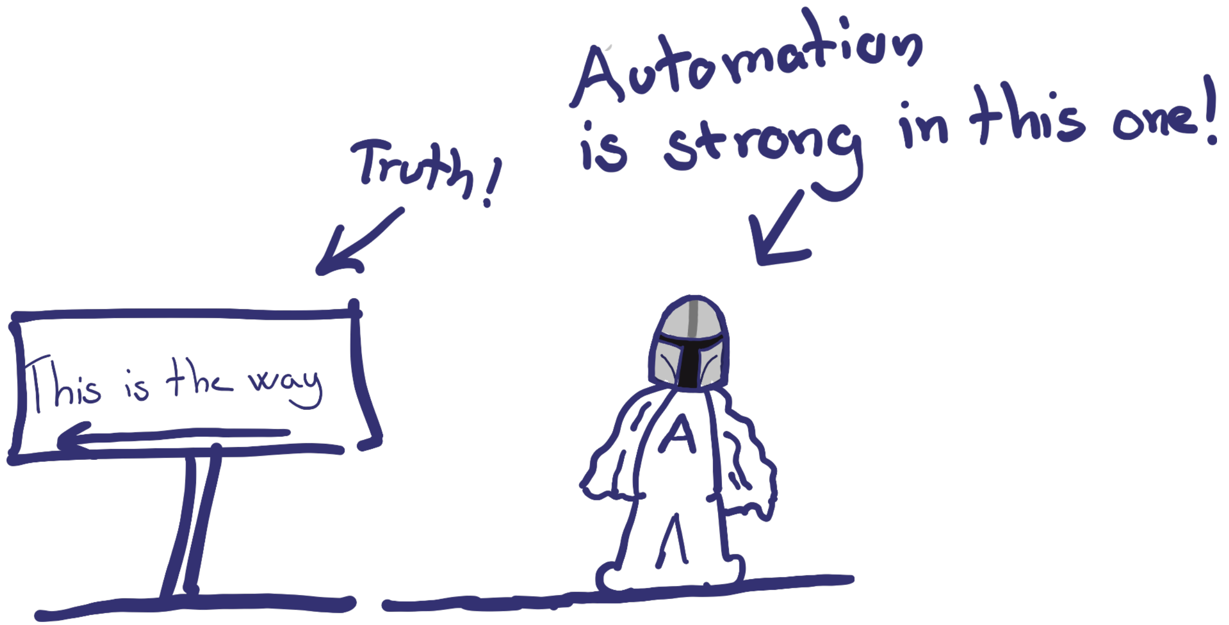
Do it once; do it fast. Do it twice; automate it.

Manual processes are error-prone and time-consuming. Documentation is expensive to establish and maintain. Typically only a few individuals in the organisation know how to complete these processes and when they are otherwise occupied panic erupts. No one knows what to do.

Automate as much as possible; infrastructure, processes, releases etc. Autonomize the rest; Build knowledge into the software so it can sustain itself without assistance from other resources. Use ChatOps or admin consoles to make workflows easier.

Turn *everything* into code and execute it - plain and simple.

How many of your processes are automated? Build, Unit tests, E2E tests, code analysis, changelogs, release, deployment, verification steps?



Turn everything into code, and execute it.

Plain and simple.

Tip 3

Test in production

Can you run experiments in production? Create A/B tests? Can you segment your customers to offer a customized experience? - you should!

Your customers live in production, and so should you.

Production; people are afraid of it for all the things that can go wrong. Production should be a battle-hardened veteran able to survive a stampede of frenzied users treating the platform as a rental car. It should be resilient, unbreakable, and subject to Continuous Delivery.

User segmentation, Feature Toggling, A/B tests and tests in production are all must-haves in any SaaS product. That's how you get to know the "what" in the "What do we have to change to build a great product".

Tip 4

Make it scale

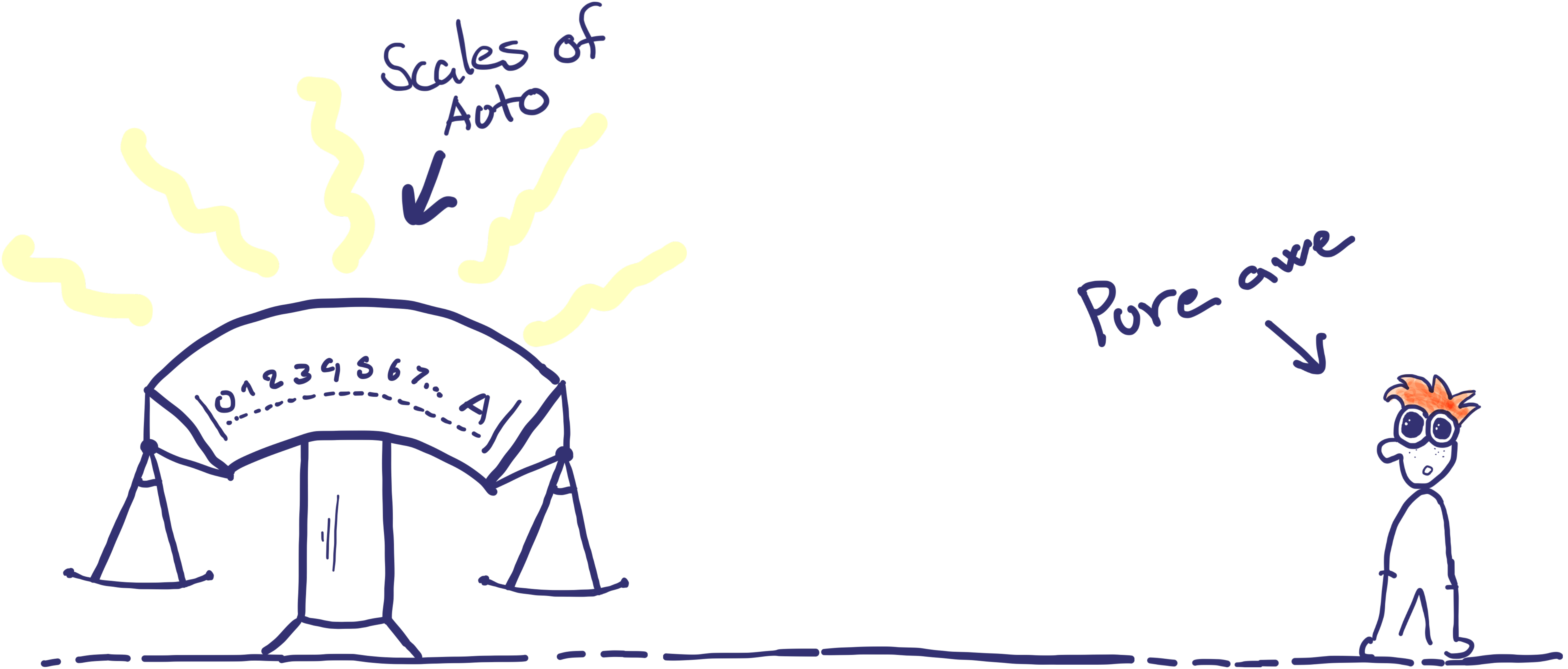
Is your infrastructure running on Physical machines? VMs? Cloud? Serverless? Is it managed?

Can you scale your business? Does your infrastructure follow?

"*How much time does it take for you to increase your capacity?*" - That is a trick question. If you are doing it right then the answer is: "*It's not something you should do, and it takes no time at all!*"

When the marketing team is killing it and users are pouring onto your platform like an electronics shop on Black Friday, then the infrastructure should automatically scale to carry the weight. During the nighttime, when your users are sleeping soundly, your infrastructure winds down accordingly.

Make sure your infrastructure auto-scales.


Scales of Auto
0 1 2 3 4 5 6 7.. A
Pure awe

Tip 5

Pick the right tool stack

What frameworks and technologies are you using? What processes are you using for managing work?

A cornerstone in, getting away with software, is the tool stack. It is our hammer and chisel, stone and mortar.

Progress over the last decade has left us with "anything as code", serverless infrastructure, build-in analytics and a ton of plug and play services.

Pick a contemporary tool stack that can be configured as code, automated and require next to no maintenance, has a ton of plugins and can easily be extended.

The development effort should be focused on user value and user experience, not on everything around it.

Most of the Millennials and all of Generation Z don't get the Ops in DevOps; There are no Operations. To them, DevOps equals Programmable Immutable infrastructure, it's all code. To them, the world is Serverless. In the future; be sure to pick a stack that can attract the talent you need.

DevOps means Programmable Immutable Infrastructure

It's all code - There is no Ops

Tip 6

Listen to the customer

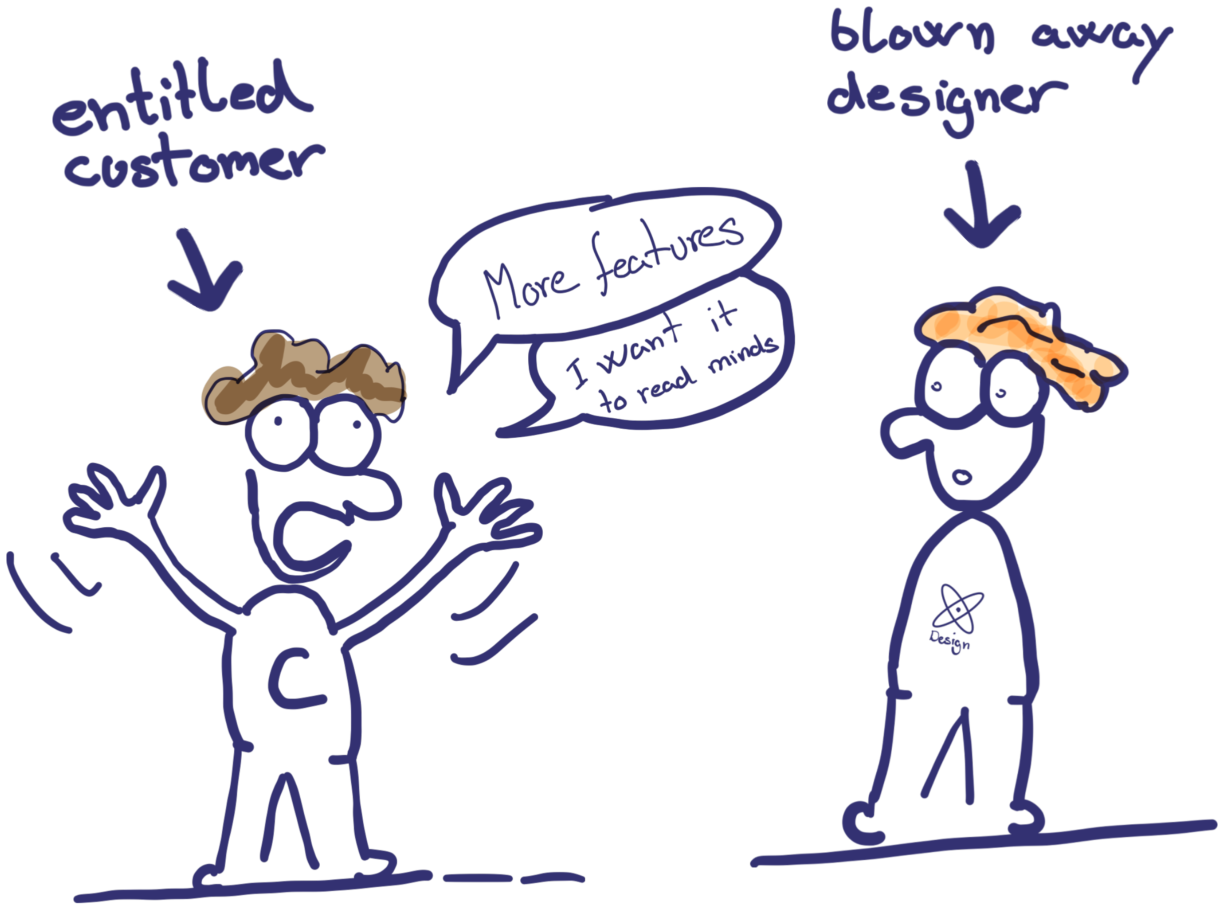
Market fit is everything. This is where a large part of startups fail because they end up building the wrong thing. Establishing a customer voice is an essential part of building the right thing.

Establish a customer voice through various channels. Customer support is a great place to get to know the needs of your users. Communities and social media are also great places to learn from the people who are going to ensure that your product is going to achieve the fabled market fit. Don't fall for the misconception that it's only marketing that needs to hear the customer voice.

The customer voice is a software enabler, so be sure to direct it to the software team as well.

Don't build for the customer, build with the customer.

How do you collect feedback from your users and customers? What do you do with it?



Don’t fall for the misconception that it’s only marketing that needs to hear the customer voice!

Tip 7

Be data-driven

Do you collect data on user behavior automatically? How do you use it to drive product development?

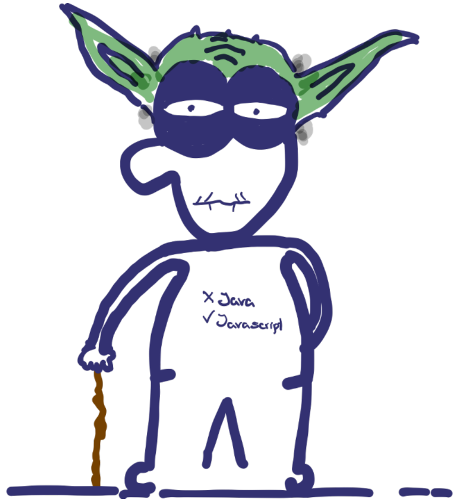
Only Trust YODa - *Your Own Data*.

Don't ask questions; "*In thought-land, all you get is a bunch of opinions*". Instead, you should measure and collect data on user behavior. Know, rather than think or guess.

Collecting data is how we learn what our users want and how we can give it to them.

Follow the validated learning loop; Recognize when you are assuming rather than knowing, then imagine a test or experiment that can provide the data you need to know to build the thing that will provide the data. Build - Measure - Learn

Be data-driven. Learn from your data and use it to strengthen decisions in your product management process. Build experiments into the platform so you can learn what you don't know.



Tip 8

Easy onboarding of users

How easy is it to onboard your users? How long does it take for them to get started? What is your pricing model?

Wrong pricing, slow onboarding, mediocre UX design, and difficult to use product, is how you spell CHURN with capital letters. Have a clear and well-formulated pricing model and make it clear what your product has to offer. Make onboarding easy, educational and entertaining. A good way to nail the right onboarding flow is to segment customers and examine each customer journey.

Your product should first and foremost be delicious and easy.

Tip 9

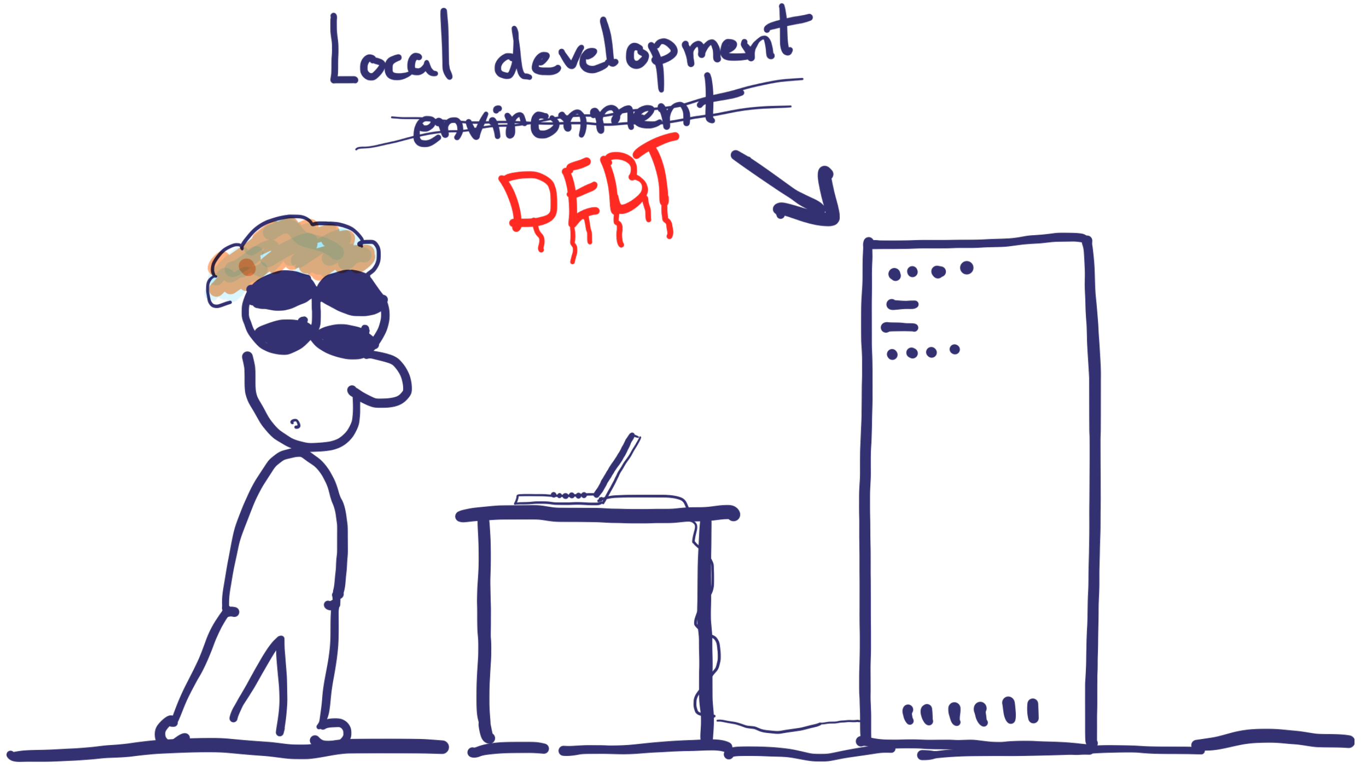
Easy onboarding of developers

In software development the workload varies. Early stages may require a lot of heavy lifting while later stages may require less. In time new features may call for upscaled effort and so the workforce must adjust. You need a small skilled core team, but you also need easy access to temporary help and sometimes even entire teams - for shorter periods of time.

Make sure developers can be onboarded easily. All the time spent getting a development environment up and running, enabling developers to contribute to your codebase is unproductive time, essentially time wasted. If it takes too long developers get frustrated and they jump ship.

Automated infrastructure, declarative pipelines, and proper tooling are enablers of quickly getting unlimited access to production-like environments for developers.

How easy is it to get up and running for new developers? Do they have unlimited access to production-like environments? Do they have a voice in the company?



Unlimited access to production-like environments

Tip 10

Be design-led

How do your designers and developers collaborate? Is your product design-led or design-fed? Who gets to decide the look and feel of your product?

All developers can hack a bit of front-end - but should they? We don't hack code, and we shouldn't hack the user experience either, we should use it as a rudder to our engine; it's steering.

The combination of developers knowing what is possible, and the insight UX designers have about their users, is key. It's not something to split up into separate detached processes. It's teamwork.

UX and design is not marketing it's software development. Consequently, your UX'er or Graphical designer is a software developer. If you don't have one, get one.

And be sure to make that person a first-class citizen in the development team.

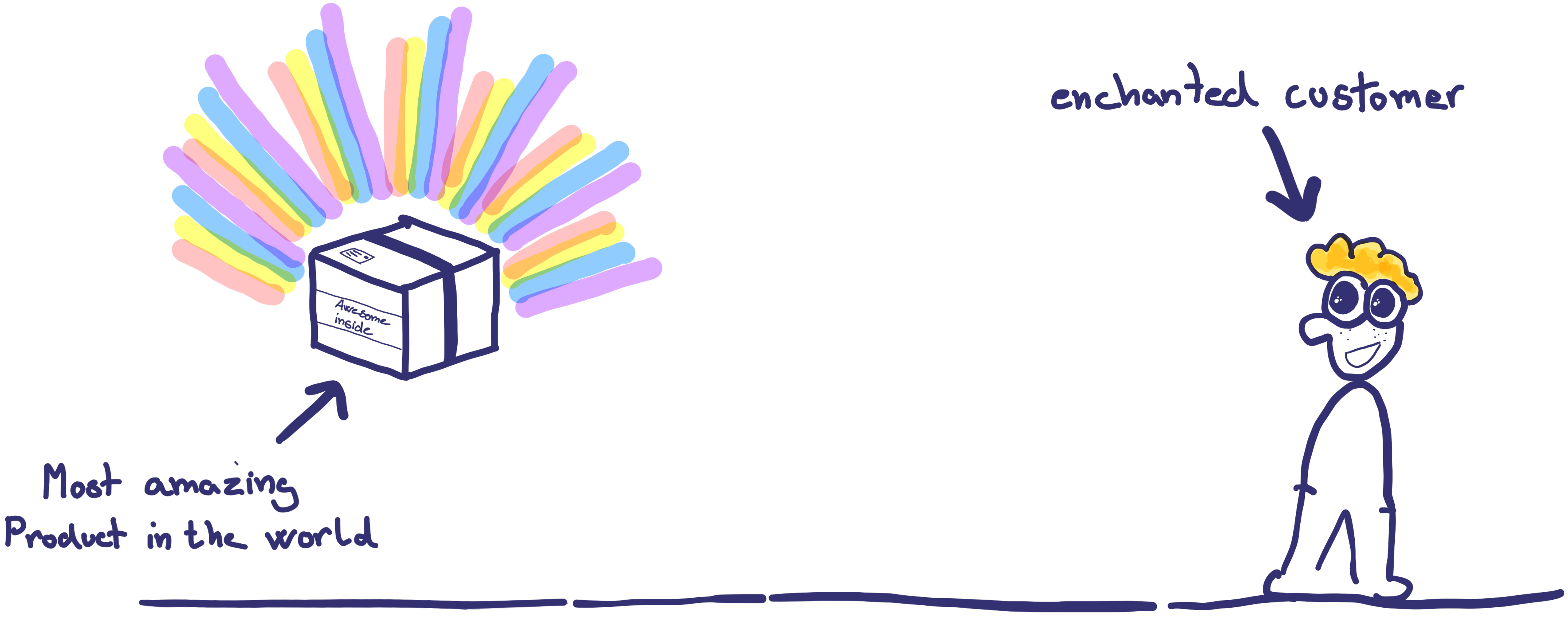
Marked fit
Mountains of market-unfit
Lake of Legacy
Don't stray from the path!
you are here
Dunes of design-fed

Get a UX'er!

Who will show you the way!

This is the way

Every journey begins with the first step and hopefully this book have provided you with a map. Follow these 10 tips and experience first hand how your SaaS startup, maybe, just maybe, can get away with software and finally achieve the formidable market fit; becoming the most amazing product in the world.


Awesome inside
Most amazing Product in the world
enchanted customer

Who are we?

inc inc is a company that founds and scales other companies through co-ownership. We do this by making our resources available to the companies we are co-owners of. We can take on leading positions within, business, product and software development, but we can also help find the right resources that will fit your startup. Interim CTO, Tech lead or UX Designer, we cover all bases.

Do you have an idea?

Are you a software company? - If you have anything to do with software, then the answer is yes. Software is not a cost it's an enabler, and you need to know how to get away with to build a successful SaaS startup. Many startups make the mistake of buying their software elsewhere, and end up with technical debt before they have even started.

If you have an idea, a concept or perhaps a business, and it involves software; but you don't know anything about software, then reach out and pitch us your idea.

hey@inc-inc.dk

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