

Effective Async Technical Project Management

Why Software Projects Fail

It is common for software projects to fail. Working in the Bay Area for over a decade, I saw more failed projects than successful projects. Here is what most likely goes wrong:

- Lack of automation
- Lack of effective project management process
- HIPPOs (Highest Paid Person's Opinion) and Heros let everyone down. This approach is another way of saying *EGO IS THE PROCESS*.
- Lack of effective technical management
- Lack of experience building software that works and is on-time
- Overconfidence
- Failing in love with the complexity of any kind
- Lack of teamwork

How to ship high-quality software that works and is on-time

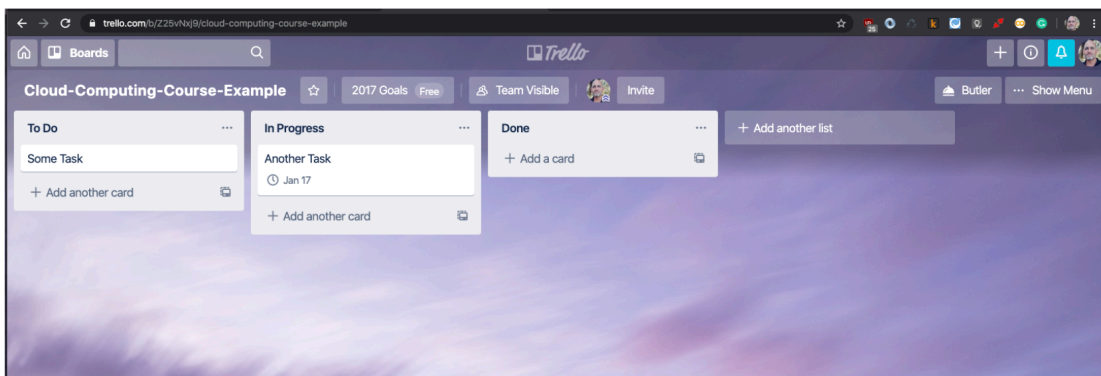
One method of hitting a deadline is creating a plan to hit the deadline. Here is a checklist:

1. Start with automation. Before the first line of code, hook it to a SaaS build system that lints and tests code²⁸.
2. Create a quarterly and yearly plan on a spreadsheet. Guess at the week by week deliverables. Estimate difficulty or time or both for each task.

Watch a screencast on how to do project management with spreadsheets.

Video Link: <https://www.youtube.com/watch?v=GbO24oKXyh8>²⁹

3. Create a simple Board based flow: To Do, In Progress, Done. Friday is an excellent day to schedule due dates, and Monday is a perfect day to do a quick “demo.”



trello

²⁸<https://circleci.com/blog/increase-reliability-in-data-science-and-machine-learning-projects-with-circleci/>

²⁹<https://www.youtube.com/watch?v=GbO24oKXyh8>

Watch a screencast on how to use Trello for project management.

Video Link: <https://www.youtube.com/watch?v=TEKMknfwHV4>³⁰

4. Always demo, every Monday. The code has to work and be of the same quality as the final project.
5. Never work until the deadline. For a critical period, assume at least a couple of weeks of QA or being late.
6. Be on the constant lookout for complexity and reduce it. If there is a choice because two tasks and one is more complex, do the simple version.
7. Create a capable team that values process over ego. You can read more about teamwork generally in Teamwork: What Must Go Right/What Can Go Wrong³¹ and the last chapter of Python for DevOps³².

Watch a video on effective technical teamwork to learn more.

Video Link: <https://www.youtube.com/watch?v=7nQkdsAN2dM>³³

8. Embrace YAGNI (You Ain't Gonna Need It).

Other examples of high failure undertakings

The same software project management principles apply to these other endeavors.

- Diets

Diets, counting calories, and other complex schemes don't work. Effective automation heuristics like intermittent fasting do³⁴. Why does IF work? There is nothing to remember. It is a simple heuristic for a complex problem.

- Exercise and Fitness

Unrealistic goals and overly complicated plans create failure. automation makes compliance. Most people brush their teeth every morning. Why? The intellectual complexity is low, and it is a habit. A daily morning walk is an example of a simple form of automation with 100% success.

What works is automation: passive investment and passive savings. Humans are biased and make mistakes, but automation is forever.

- Writing books

Writing a book is just like building software. Many people fail at writing books because of exploding complexity and lack of automation. The work performed last week is similar to the next week.

³⁰<https://www.youtube.com/watch?v=TEKMknfwHV4>

³¹<https://www.amazon.com/Teamwork-Right-Wrong-Interpersonal-Communication/dp/0803932901>

³²<https://www.amazon.com/dp/149205769X/>

³³<https://www.youtube.com/watch?v=7nQkdsAN2dM>

³⁴<https://noahgift.com/articles/datascience-meets-intermittent-fasting/>