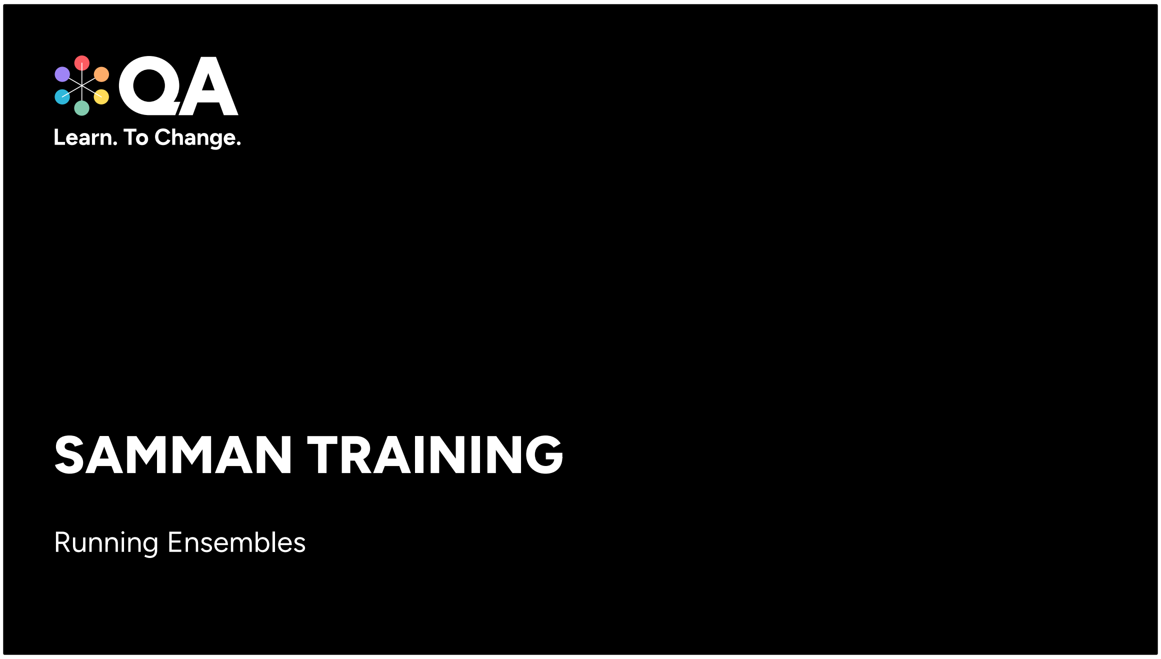
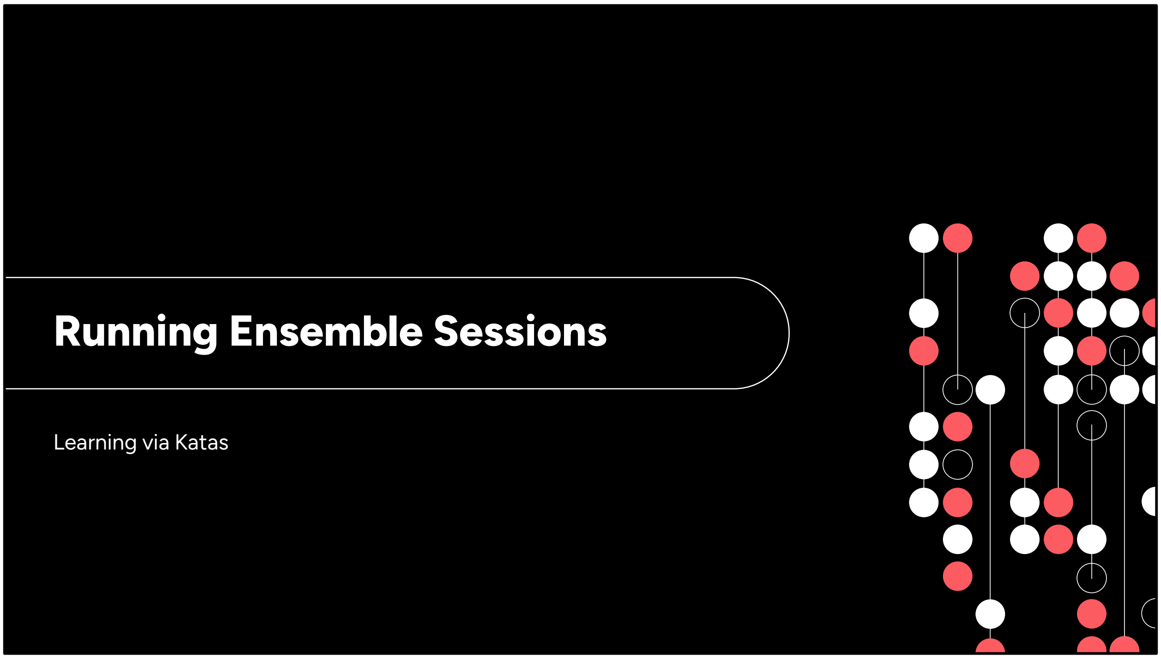


QA

Learn. To Change.

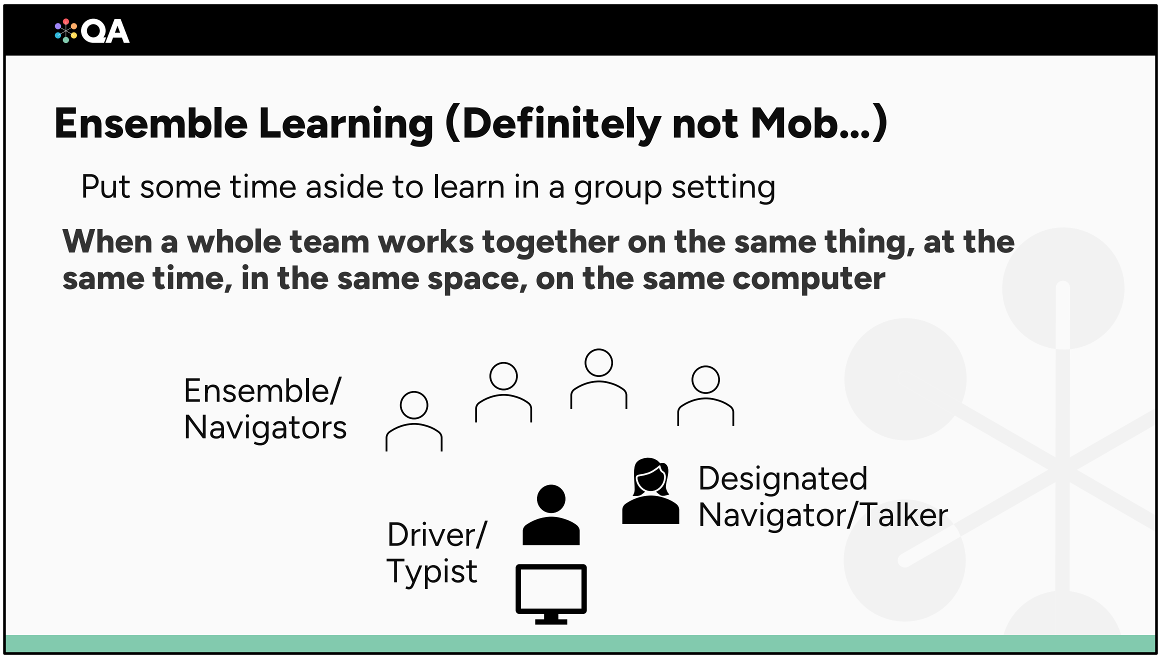
SAMMAN TRAINING

Running Ensembles



Running Ensemble Sessions

Learning via Katas



QA

Ensemble Learning (Definitely not Mob...)

Put some time aside to learn in a group setting

When a whole team works together on the same thing, at the same time, in the same space, on the same computer

Ensemble/
Navigators

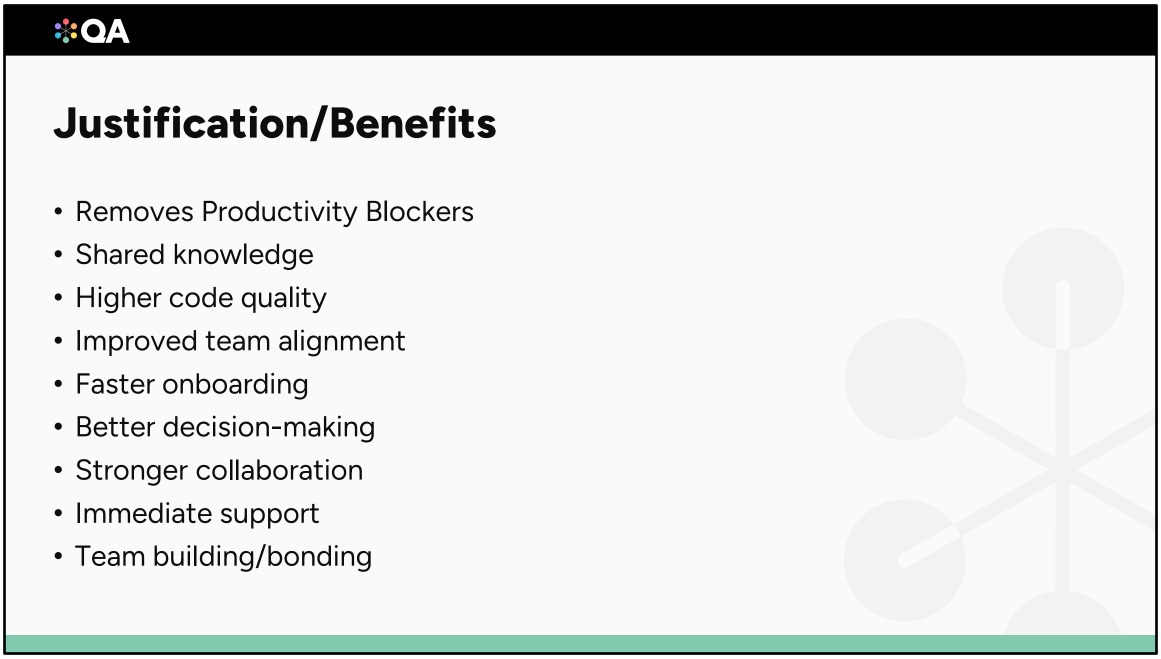
Designated
Navigator/Talker

Driver/
Typist

A Tester's Journey: Ensemble Is the New Mob
https://www.lisihocke.com/2021/02/ensemble-is-the-new-mob.html#:~:text=Beginning%20of%20February%2C%20one%20colleague,Emily%20Bache%20and%20Lisa%20Crispin.
"The terms "ensemble" and "mob" refer to the same approach. People had been looking for a replacement term for many years to get rid of the negative connotations of the "mob" which was perceived as problematic. Many people had been appalled by the term "mob" and hence didn't want to give it a try. Thinking of bullying or lynch mobs, the term is triggering trauma. Since last year [2019] we now finally have a new term that's a lot more inclusive: the ensemble. It's already been taken up and lived by many leading experts like Emily Bache and Lisa Crispin. "

Excellent blog that describes a first ever ensemble session that highlights positives and negatives:
A Tester's Journey: Our Team's First Mobbing Session
https://www.lisihocke.com/2017/04/our-teams-first-mobbing-session.html

Also this is a great page of resources:
A Tester's Journey: Collaboration
https://www.lisihocke.com/p/collaboration.html

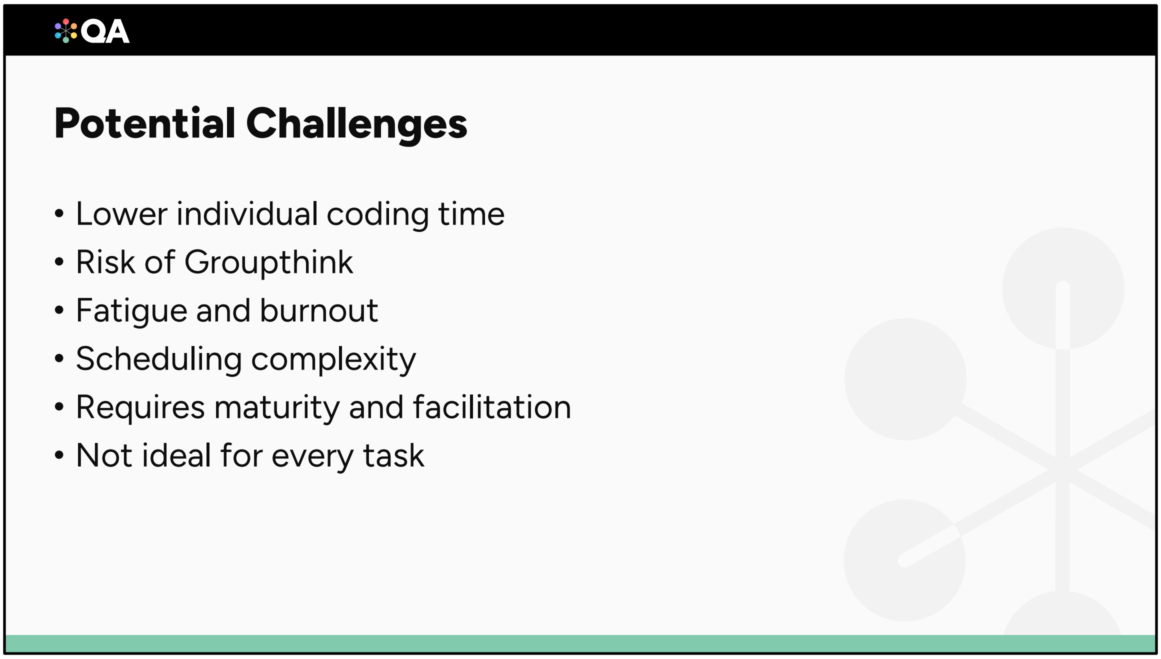


Justification/Benefits

- Removes Productivity Blockers
- Shared knowledge
- Higher code quality
- Improved team alignment
- Faster onboarding
- Better decision-making
- Stronger collaboration
- Immediate support
- Team building/bonding

- Removes Productivity Blockers: ensembles can overcome: Multitasking, Interruptions, Being blocked, Technical debt, Code cruft, Waiting for information or reviews, Unnecessary meetings, Incomplete understanding, or not understanding the problem at all, Context switching, Merge conflicts, Lack of quality, Missing knowledge
- Shared knowledge: Everyone in the team gains a deeper understanding of the codebase and domain, reducing knowledge silos.
- Higher code quality: Continuous peer review and real-time feedback help catch bugs and design issues early.
- Improved team alignment: Promotes a shared vision and consistent coding practices across the team.
- Faster onboarding: New team members ramp up quicker by participating in the work directly with guidance from experienced colleagues.
- Better decision-making: Diverse perspectives lead to more thoughtful design and problem-solving.
- Stronger collaboration: Encourages communication, trust, and empathy within the team.
- Immediate support: If someone gets stuck, others are right there to help, reducing downtime.

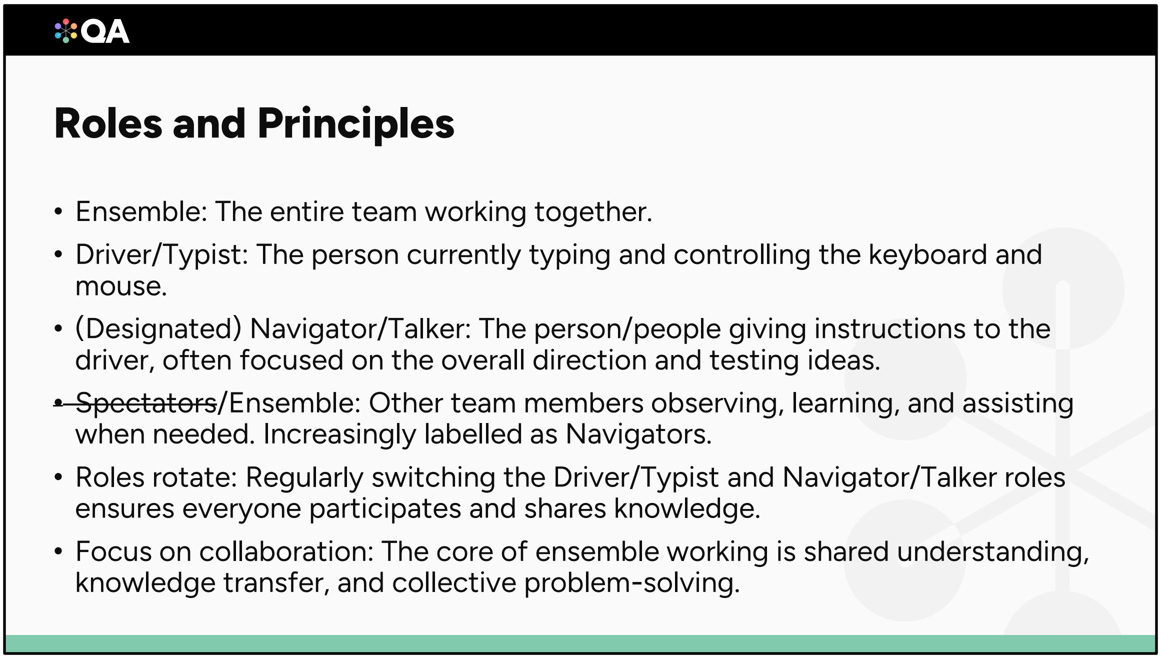
Same benefits as code reviews but done at the time the code is being written!



Potential Challenges

- Lower individual coding time
- Risk of Groupthink
- Fatigue and burnout
- Scheduling complexity
- Requires maturity and facilitation
- Not ideal for every task

- Lower individual coding time: Developers may feel they’re not getting enough hands-on practice, especially those who learn best by doing.
- Risk of groupthink: Creative or divergent solutions might get overlooked if everyone leans toward consensus too quickly.
- Fatigue and burnout: Long ensemble sessions can be mentally exhausting; rotating roles and taking breaks is essential.
- Scheduling complexity: Getting everyone in the same room (or virtual room) can be hard, especially with distributed teams.
- Requires maturity and facilitation: Without strong communication and facilitation, sessions can derail or be dominated by stronger personalities.
- Not ideal for every task: Simple, repetitive, or exploratory tasks may not need the full team’s attention. However, when working on something "simple" ensembles can innovate and find ways to automate workflow elements.



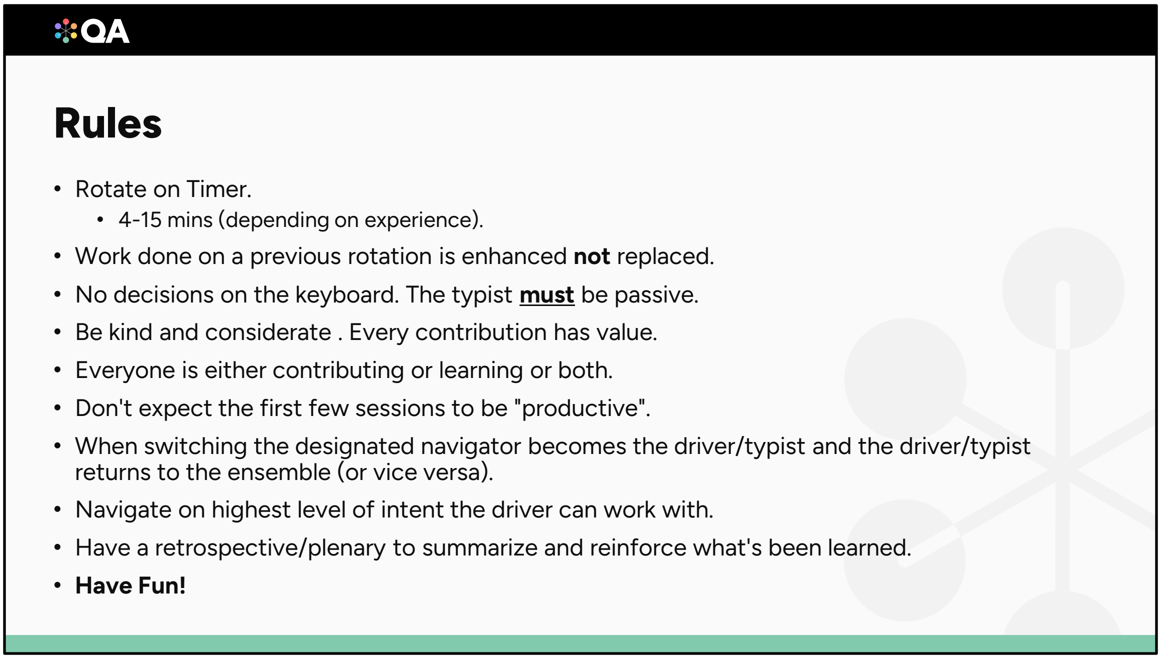
QA

Roles and Principles

- Ensemble: The entire team working together.
- Driver/Typist: The person currently typing and controlling the keyboard and mouse.
- (Designated) Navigator/Talker: The person/people giving instructions to the driver, often focused on the overall direction and testing ideas.
- ~~Spectators~~/Ensemble: Other team members observing, learning, and assisting when needed. Increasingly labelled as Navigators.
- Roles rotate: Regularly switching the Driver/Typist and Navigator/Talker roles ensures everyone participates and shares knowledge.
- Focus on collaboration: The core of ensemble working is shared understanding, knowledge transfer, and collective problem-solving.

EnsembleProgrammingGuidebook.pdf (includes a chapter on how to be a facilitator)
https://ensembleprogramming.xyz/Download/EnsembleProgrammingGuidebook.pdf

The Mob Programming Role Playing Game gives you the opportunity to investigate additional roles (Researcher, Sponser, Rear Admiral,...) you may want to introduce...
https://github.com/willemlarsen/mobprogrammingrpg



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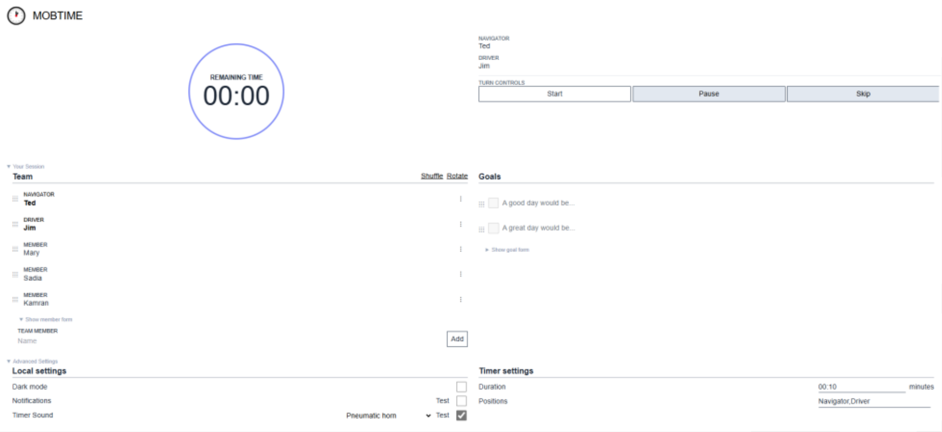
Rules

- Rotate on Timer.
  - 4-15 mins (depending on experience).
- Work done on a previous rotation is enhanced **not** replaced.
- No decisions on the keyboard. The typist <u>**must**</u> be passive.
- Be kind and considerate . Every contribution has value.
- Everyone is either contributing or learning or both.
- Don't expect the first few sessions to be "productive".
- When switching the designated navigator becomes the driver/typist and the driver/typist returns to the ensemble (or vice versa).
- Navigate on highest level of intent the driver can work with.
- Have a retrospective/plenary to summarize and reinforce what's been learned.
- **Have Fun!**

Ensemble Timer



MOBTIME

REMAINING TIME
00:00

NAVIGATOR
Ted

DRIVER
Jim

Your Session

Team

NAVIGATOR
Ted

DRIVER
Jim

MEMBER
Mary

MEMBER
Sadia

MEMBER
Kamran

TEAM MEMBER
Name

Goals

□ A good day would be...

□ A great day would be...

Advanced Settings

Local settings

Dark mode □

Notifications Test □

Timer Sound Pneumatic horn Test ☑

Timer settings

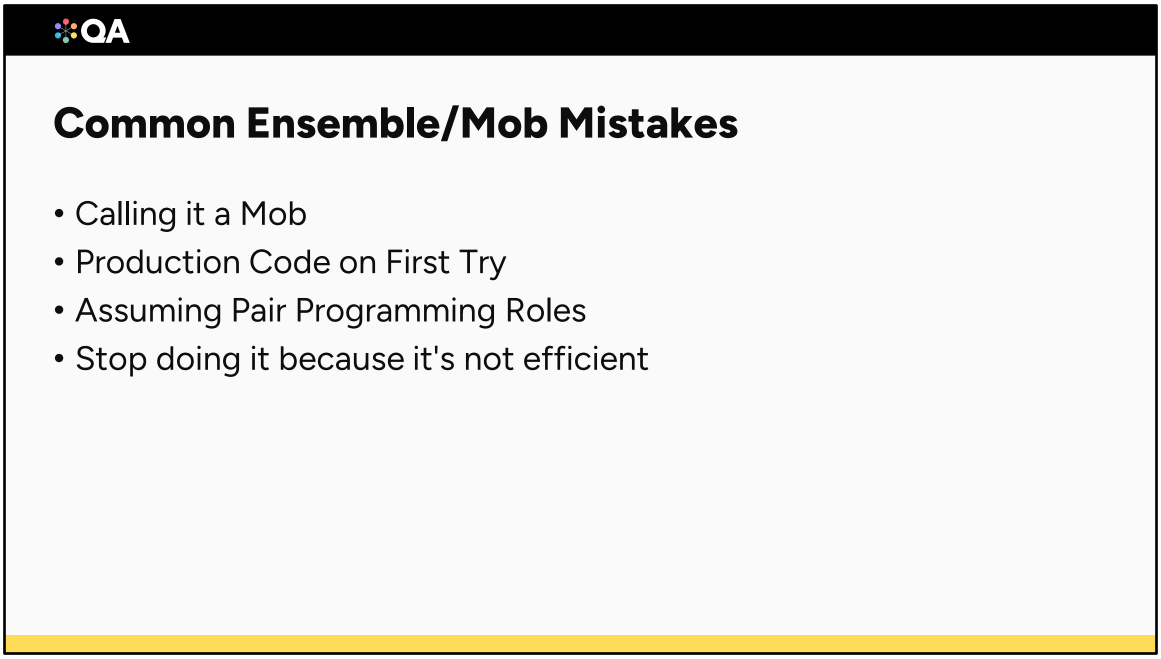
Duration 00:10 minutes

Positions Navigator,Driver

There are a number of timers out there that are designed to be used in ensemble/mob programming sessions.

MobTime

https://mobti.me/



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Common Ensemble/Mob Mistakes

- Calling it a Mob
- Production Code on First Try
- Assuming Pair Programming Roles
- Stop doing it because it's not efficient

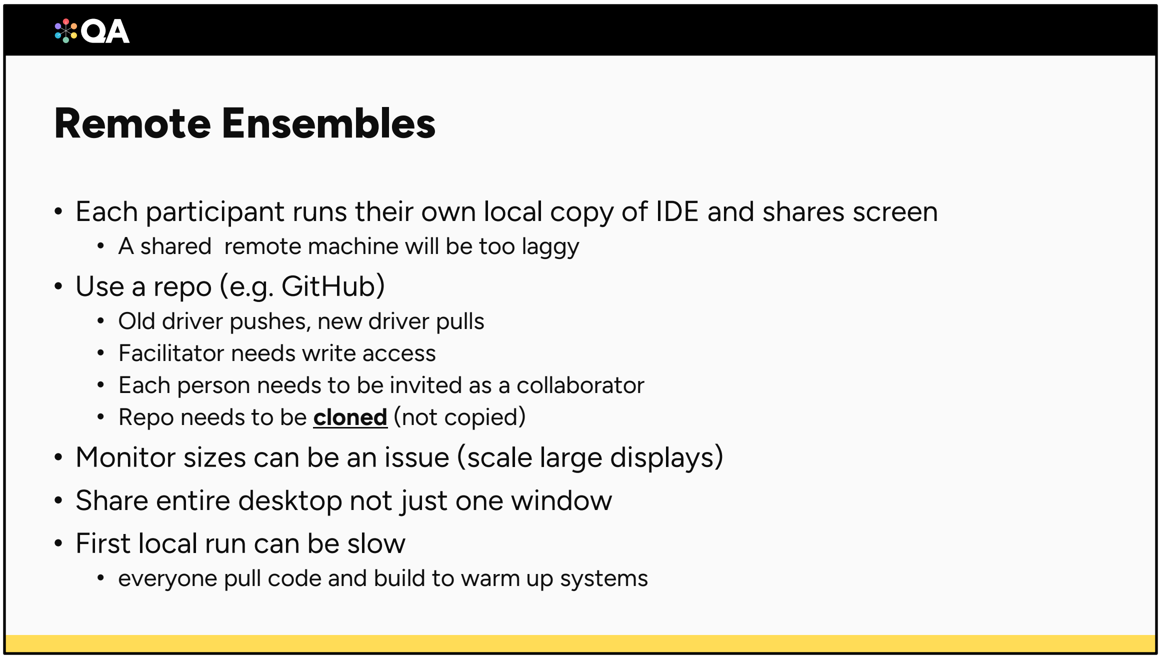
KEYNOTE : Ensemble Working : The ultimate in collaboration - Clare Sudbery
https://events.responsive.se/tidigare-arrangemang/devlin2023/presentationerna-devlin2023/310-keynote-ensemble-working-the-ultimate-in-collaboration-clare-sudbery

Mob Programming & the Power of Flow • Woody Zuill • GOTO 2019
https://www.youtube.com/watch?v=28S4CVkYhWA

Emily Bache: AVOID These Mob Programming / Ensemble Mistakes:
https://www.youtube.com/watch?v=qjE1O9Zdm3U

Ensemble is a skill that needs to be learnt and developed. It takes brain power and effort to learn to do it well.

Mob Mentality Show – YouTube
https://www.youtube.com/@mobmentalityshow/videos



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Remote Ensembles

- Each participant runs their own local copy of IDE and shares screen
  - A shared remote machine will be too laggy
- Use a repo (e.g. GitHub)
  - Old driver pushes, new driver pulls
  - Facilitator needs write access
  - Each person needs to be invited as a collaborator
  - Repo needs to be **cloned** (not copied)
- Monitor sizes can be an issue (scale large displays)
- Share entire desktop not just one window
- First local run can be slow
  - everyone pull code and build to warm up systems

Remote Ensemble Programming:
Ensemble programming. Collaborative coding as a remote team | by Stephan Bester | Medium
https://stephan-bester.medium.com/ensemble-programming-c9a4212cd1f2

Remote Ensemble Programming at Meltwater - Meltwater Engineering Blog
https://underthehood.meltwater.com/blog/2023/08/09/remote-ensemble-programming/

How Remote Ensemble (Mob) Programming Is Working for Me
https://qualitycoding.org/remote-mob-programming/

Remote Mob Programming | How we do Remote Mob Programming. (Has a free PDF book)
https://www.remotemobprogramming.org/

Remote Ensemble **Testing** - How an Experiment Shaped the Way We Work:
https://www.infoq.com/articles/remote-ensemble-working-experiment/

For the first ensemble consider having a practice round where emphasis is on getting things running smoothly.

Fast git handover with mob tool
Fast git handover with mob | Tool for smooth git handover.
https://mob.sh/

QA

Samman Katas

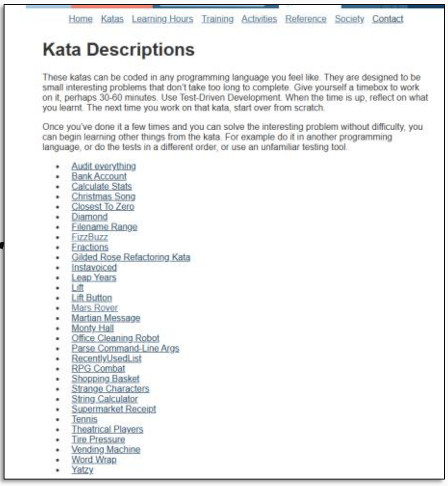
A challenge that takes between 30 and 60 minutes.

Encourage TDD as a development model

Or Feel free to make your own

Collaborative Learning

Multiple Exposures



Home Katas Learning Hours Training Activities Reference Society Contact

Kata Descriptions

These katas can be coded in any programming language you feel like. They are designed to be small interesting problems that don't take too long to complete. Give yourself a timebox to work on it, perhaps 30-60 minutes. Use Test-Driven Development. When the time is up, reflect on what you learnt. The next time you work on that kata, start over from scratch.

Once you've done it a few times and you can solve the interesting problem without difficulty, you can begin learning other things from the kata. For example do it in another programming language, or do the tests in a different order, or use an unfamiliar testing tool.

- Audit everything
- Bank Account
- Calculate Stats
- Christmas Song
- Closest To Zero
- Diamond
- Filename Range
- FizzBuzz
- Fractions
- Gilded Rose Refactoring Kata
- Instavoiced
- Leap Years
- Lift
- Lift Button
- Mars Rover
- Martian Message
- Monty Hall
- Office Cleaning Robot
- Parse Command-Line Args
- RecentlyUsedList
- RPG Combat
- Shopping Basket
- Strange Characters
- String Calculator
- Supermarket Receipt
- Tennis
- Theatrical Players
- Tire Pressure
- Vending Machine
- Word Wrap
- Yatzy

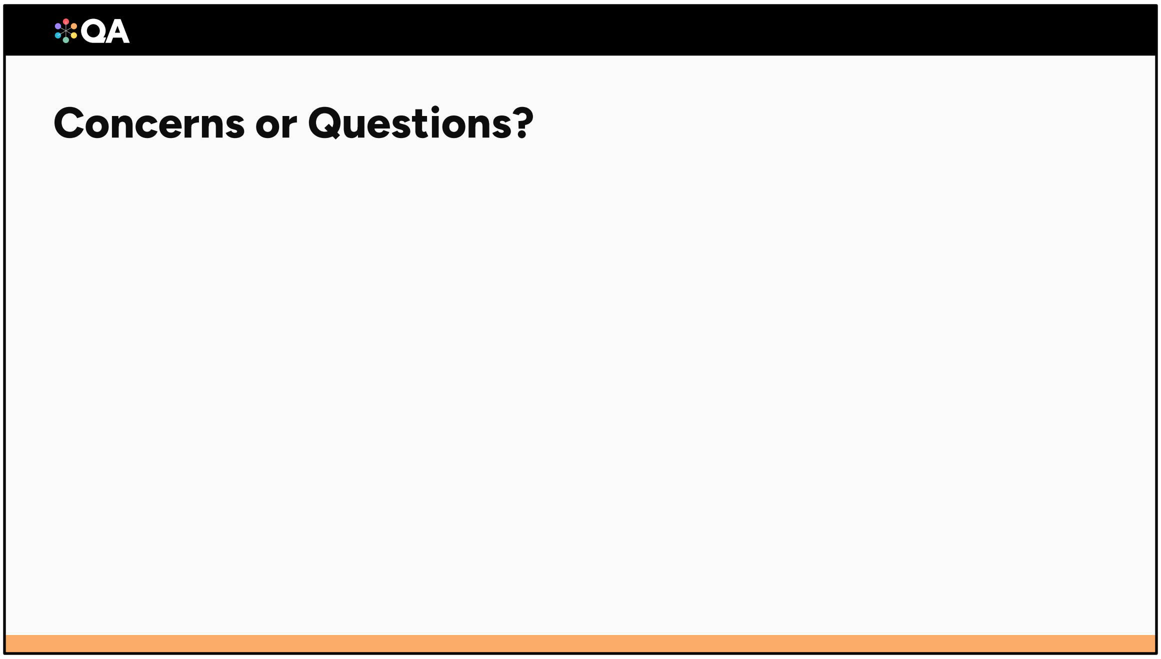
Alternate Saman hour, ensemble one week for each. Therefore 2-week cycles.

Mob Programming Role Playing Game:
willemlarsen/mobprogrammingrpg: A game for exploring the development practice of mob programming
https://github.com/willemlarsen/mobprogrammingrpg

Demo of the Mob Programming and the RPG (Part 1)
https://www.youtube.com/watch?v=ixV8YG5vwyM

Demo of the Mob Programming and the RPG (Part 2)
https://www.youtube.com/watch?v=V1ZgaX99UJ4

Web App that Automates the Mob Programming RPG
https://gregorriegler.com/mob-programming-rpg/bxmpiwosw0u



Concerns or Questions?

QA

Learn. To Change.