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Checklist: Key Indicators of high performing software development teams

Based on **Accelerate: Building and Scaling High Performing Technology Organizations** by Nicole Forsgren, PhD, Jez Humble, and Gene Kim.

Instructions: Answer each question with a value from 0 to 4 where:

- 0 = Not happening today, i.e. "It's on our To Do list, but not there yet!"
- 1 = Occurs occasionally in some areas, i.e. "Some people do this individually, but not standard practice."
- 2 = Occurs periodically on some parts of the team, i.e. "Many team members are aware and have good intentions, but it is not happening on a regular basis."
- 3 = Usually, but not always, i.e. "It's part of our standard process, but we still seem to miss it at times."
- 4 = Almost always, i.e. "It's part of our DNA and just how we operate."

Once you have answered all the questions, sum the points per category and enter this value on the category title line. To get an overall grade, total the points for all sections and add 4 bonus points just for taking the test. This will give you an overall score from 4 to 100. Give yourself a grade using the standard schoolwork approach of "C" for scores in the 70s, "B" for scores in the 80s, and an "A" for scores in the 90s. **How many software development teams score an "A" on this assessment?** If you scored less than 90% on any category, you may want to review the sections of the book that are most relevant for that category.

Continuous Delivery Indicators – Total Points: _____ (out of 32 points)

1. [0-4] Does your software development organization use version control (such as GitHub or Subversion) for all production artifacts including application code, application configurations, system configurations, and scripts for automating build and configuration of the environment?

2. [0-4] Does your software development organization automate all deployment processes so that there is no manual intervention?

3. [0-4] Does your team implement true continuous integration (CI) where code is regularly checked in, and each check-in triggers a set of quick tests to discover serious regressions, which developers fix immediately?

4. [0-4] Does your software development organization use trunk-based development methods where there are fewer than three active branches in a code repository and branches/forks have very short lifetimes (e.g. less than a day) before being merged into master?

5. [0-4] Does your software development organization implement test automation where software tests are run automatically and continuously throughout the development process?

6. [0-4] Does your team have support test data management that ensures there is adequate necessary data on demand, ability to condition test data in the pipeline, and data not limiting the number of tests that can be run?

7. [0-4] Does your team believe and follow a shift left on security approach where security is integrated into the design and testing phases of the software development process?

8. [0-4] Does your software development organization implement continuous delivery (CD) where software is in a deployable state throughout its lifecycle? Is there fast feedback on the quality and deployablility of the system that is available to all team members? Can the system be deployed to production or end users at any time, on demand?

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Architecture Indicators – Total Points: _____ (out of 8 points)

0 - 4

9. Does your software development organization consistently design around a loosely coupled architecture that allows the teams to work independently, without relying on other teams for support and services?

0 - 4

10. Does your software development organization empower your teams to choose which tools to use to be even better at continuous delivery and, in turn, drive better software development and delivery performance?

Product and Process Indicators – Total Points: _____ (out of 16 points)

0 - 4

11. Do your software development processes provide a regular means to gather and implement customer feedback on a consistent basis throughout the cycle?

0 - 4

12. Does your software development organization make the flow of work visible through the value stream so that teams have a good understanding of and visibility into the flow of work from the business all the way through to customers?

0 - 4

13. Does your software development organization break work down into small batches that can be completed in a week or less? Can you see progress being made on your software projects on a weekly basis rather than waiting until there is some release event to see the final or nearly final product?

0 - 4

14. Does your software development management foster and enable team experimentation?

Lean Management & Monitoring Indicators – Total Points: _____ (out of 20 points)

0 - 4

15. Do you follow a lightweight change approval process? If you are using Change Control Board (CCB) or Change Approval Board (CAB) for approvals, these are NOT considered lightweight.

0 - 4

16. During your software development projects, are you able to monitor across application and infrastructure to take actions or make business decisions accordingly?

0 - 4

17. Are you able to monitor system health, using threshold and rate-of-change warnings, to enable teams to preemptively detect and mitigate problems?

0 - 4

18. Does your team follow some type of LEAN methodology to improve processes and manage work with work-in-progress (WIP) limits to manage the flow of work

0 - 4

19. Do you have visual displays such as dashboards or internal website to monitor quality and work in progress? Is this shared across the team?

Cultural Indicators – Total Points: _____ (out of 20 points)

0 - 4

20. Does your software development organization demonstrate good information flow across the development teams and broader company? Is there high cooperation and trust between the teams?

0 - 4

21. Does your software development organization encourage and support learning across the teams? Is learning seen as an investment rather than a cost?

0 - 4

22. Does your software development organization support and facilitate collaboration among teams (including product owners)?

0 - 4

23. Does your software development organization provide resources/tools that make work meaningful for the individuals? Are your employees empowered to exercise their skills and judgement on a regular basis?

0 - 4

24. Does your organization support or embody transformational leadership? Are your leaders inspiring and motivating teams to achieve higher performance by appealing to their values and sense of purpose through identifiable vision, values, communication, example-setting, and evident caring about the individual?