

From Skeptic to Advocate: Embracing AI in Test Automation

January 18th, 2024

With Travis Parchman & Brendan Gilhuly

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```
$result !== false {  
  $distArray = array();  
  $row = mysqli_fetch_assoc($result);  
  $correctAnswer = $row['Correct'];  
  $distArray['A'] = $row['Anum'];  
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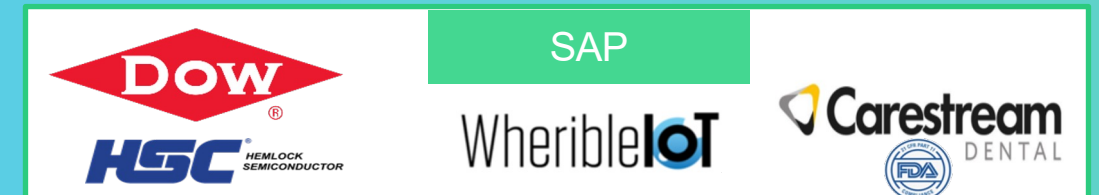
About Webomates

Cloud Based AI-enhanced Testing Platform

- Founded in Oct 2015, based in Stamford CT
- Offices in US, Netherlands and India
- 9 Granted Patents

Department of Defense

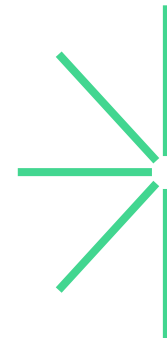
- *AFWERX SBIR Phase 1&2 awards*
- *Phase 3 IDIQ in Final Discussions with KR, LU, ...*
- *Navy and Army initial discussions underway*



WHAT WOULD CHATGPT SAY?



Embracing AI in Test Automation





Development managers are not necessarily "defacto QA" (Quality Assurance) professionals, but they do play a crucial role in ensuring the overall quality of software development projects.

Here's a breakdown of their responsibilities:

Development Managers:

They are primarily responsible for overseeing the entire software development process, from planning and design to coding, testing, and deployment.

They manage the development team, assign tasks, set priorities, and ensure that the project stays on schedule and within budget.

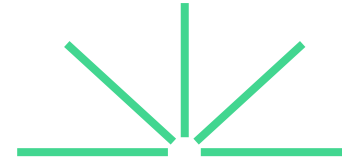
They focus on the technical aspects, such as architecture, design patterns, and code quality.

QA Professionals:

Their main responsibility is to ensure the quality of the software by thoroughly testing it. This includes functional testing, regression testing, performance testing, and more.

AND...





They identify and report bugs or defects and work closely with the development team to get them fixed.

QA professionals also help establish testing processes, strategies, and frameworks.

While Development Managers are not QA professionals by default, they should have a good understanding of the importance of quality in software development. They need to work closely with the QA team to ensure that testing processes are in place and that the final product meets the required quality standards.

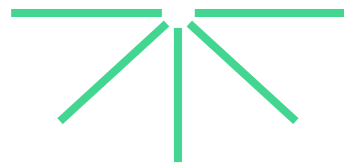
In some smaller teams or organizations, especially startups, a Development Manager might take on additional responsibilities, including aspects of QA. This is often out of necessity due to limited resources.

However, it's important to note that this doesn't make them "defacto QA." They are still primarily responsible for managing the development process, and any QA work they perform is likely in support of that broader goal.

**SO MAY
BE...**



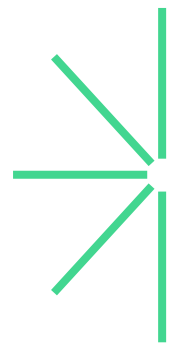
WHAT ABOUT TRAVIS?



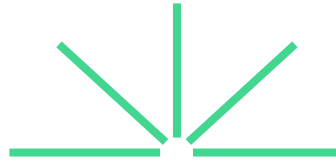
Are Dev Managers De facto QA?



WHAT WOULD CHATGPT SAY?



What do Dev Managers care about with respect to software testing?



Development Managers care about several key aspects of software testing:

1. Test Coverage:

- They want to ensure that the testing process covers as much of the application's functionality as possible. This helps identify and address potential issues early in the development process.

2. Bug Detection and Reporting:

- Development Managers are concerned with identifying and reporting bugs or defects in the software. They want to ensure that the QA team is thorough in their testing and provides clear and actionable bug reports.

3. Test Automation:

- Automation is crucial for efficient and repeatable testing. Development Managers are interested in the automation of tests, especially for regression testing, to ensure that new code changes don't introduce new issues.

4. Testing Processes and Documentation:

- They want well-defined and documented testing processes. This includes test plans, test cases, and procedures for executing tests. Clear processes help in maintaining consistency and ensure that all aspects of the software are thoroughly tested.

AND...





5. Integration Testing:

- Development Managers are concerned with how different components or modules of the software interact with each other. They want to ensure that integration testing is conducted to catch issues that may arise when different parts of the system work together.

6. Performance and Load Testing:

- They are interested in ensuring that the software can handle the expected load and performance requirements. This is critical for applications that are expected to handle a large number of users or transactions.

7. Security Testing:

- Security is a major concern for any software application. Development Managers want to ensure that security testing is conducted to identify and mitigate potential vulnerabilities.

8. Feedback and Collaboration with Development Team:

- They value open communication and collaboration between the development and testing teams. This includes providing feedback on the quality of code and working together to resolve any identified issues.

AND SOME MORE...





9. Release Readiness:

- Development Managers are ultimately responsible for releasing a stable and high-quality product. They need to be confident that the software has undergone thorough testing and is ready for deployment.

10. Efficiency and Timeliness:

- They want testing processes to be efficient and timely. Delays in testing can impact project timelines, so Development Managers are concerned with ensuring that testing is conducted in a timely manner without compromising quality.

In summary, Development Managers care about ensuring that the software development process includes thorough and effective testing practices to deliver a high-quality product to users. They are focused on both the technical aspects of testing (e.g., test coverage, automation) and the overall process and collaboration between teams.

AND EVEN MORE...WOW!!THAT'S A LOT



WHAT ABOUT

TRAVIS?

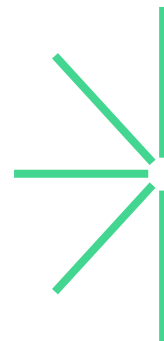


Source : [Tech Beacon](#)

A decorative graphic consisting of a vertical green line on the left, with four diagonal green lines extending from its right side towards the center.

What do Dev Managers care about with respect to software testing?

WHAT WOULD CHATGPT SAY?



How can I solve my software testing problems?



Solving software testing problems requires a multifaceted approach. Here's a comprehensive guide for a Development Manager to address common testing challenges:

1. Define Clear Testing Objectives:

- Clearly articulate the goals and expectations for testing. Ensure that the testing team understands what needs to be achieved.

2. Allocate Adequate Resources:

- Ensure that the testing team has the necessary tools, infrastructure, and skilled personnel to perform their tasks effectively.

3. Promote a Collaborative Culture:

- Foster strong communication and collaboration between developers, testers, and other stakeholders. Encourage a shared sense of responsibility for quality.

4. Establish Standardized Testing Processes:

- Define and document clear testing processes, including test planning, execution, and reporting. Standardization helps maintain consistency and efficiency.

5. Prioritize Testing Activities:

- Focus on critical areas of the application that are prone to defects or have a significant impact on users.

AND...





6. Embrace Test Automation:

- Invest in automated testing tools and frameworks to streamline repetitive and time-consuming testing tasks, especially for regression testing.

7. Implement Continuous Integration/Continuous Deployment (CI/CD):

- Integrate testing into your CI/CD pipeline to ensure that code changes are thoroughly tested before deployment.

8. Conduct Regular Code Reviews:

- Review code with a focus on testability and adherence to testing best practices. Encourage developers to write code with testing in mind.

9. Encourage Test-Driven Development (TDD):

- Advocate for TDD practices where developers write tests before writing code. This promotes the creation of more testable and reliable code.

10. Leverage Cross-Functional Teams:

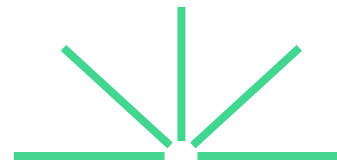
- Encourage cross-functional collaboration, where testers, developers, and other stakeholders work together to address quality concerns.

11. Invest in Training and Skill Development:

- Provide training and opportunities for skill development for both testing and development teams to stay updated on best practices.

**WAIT.. THERE'S
MORE...**





12. Conduct Root Cause Analysis (RCA):

- When defects are identified, perform thorough RCA to understand the underlying causes and implement preventive measures.

13. Monitor Testing Metrics:

- Track key performance indicators (KPIs) like test pass rate, defect density, and code coverage to assess the effectiveness of testing efforts.

14. Implement Risk-Based Testing:

- Prioritize testing efforts based on the areas of the application that have the highest risk of failure.

15. Cultivate a Culture of Quality:

- Foster a mindset where quality is a shared responsibility among all team members, not just the testing team.

16. Promote Continuous Improvement:

- Encourage teams to regularly reflect on their testing processes and seek ways to improve efficiency and effectiveness.

17. Emphasize Usability and User Experience Testing:

- Ensure that testing efforts also cover aspects related to the user interface, usability, and overall user experience.

18. Celebrate Testing Successes:

- Recognize and celebrate the achievements of the testing team to reinforce the importance of their contributions.

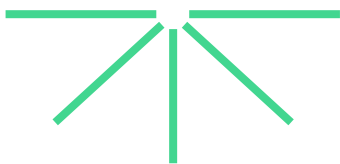
Remember, solving testing problems is an ongoing process. Regularly assess the effectiveness of your testing practices and be willing to adapt and evolve as needed to meet the changing demands of your projects.

PHEW!!



WHAT ABOUT

TRAVIS?



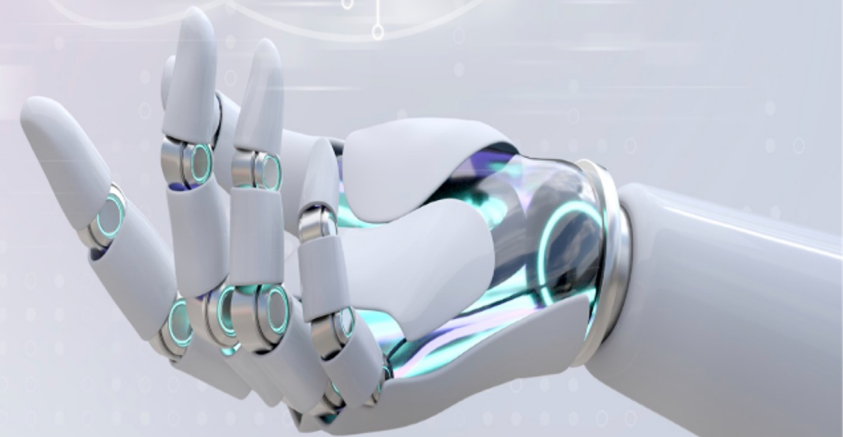
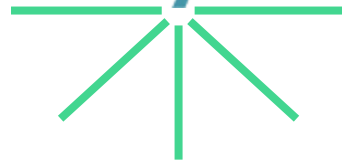
How can I solve my software testing problems?



USE

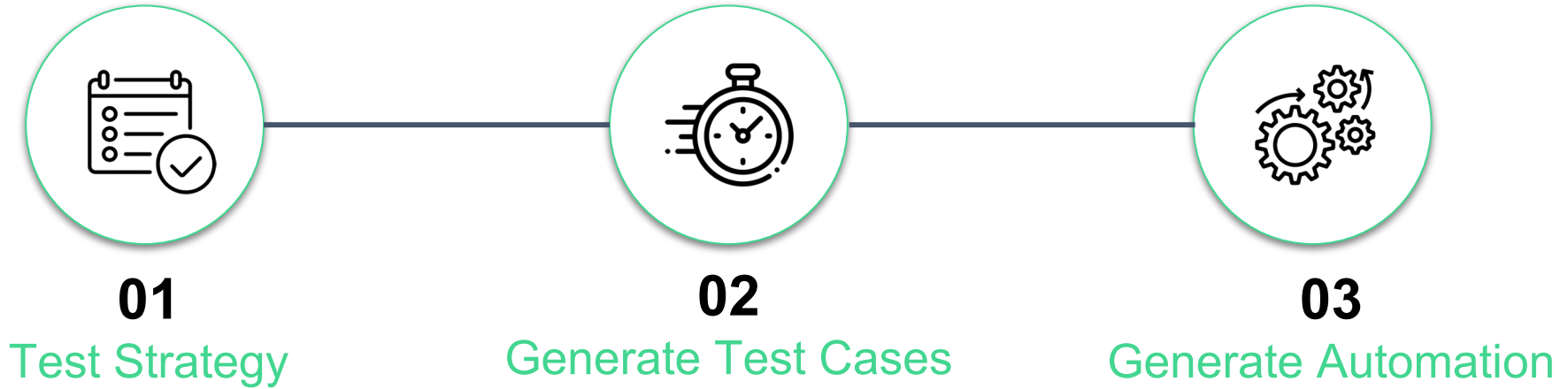
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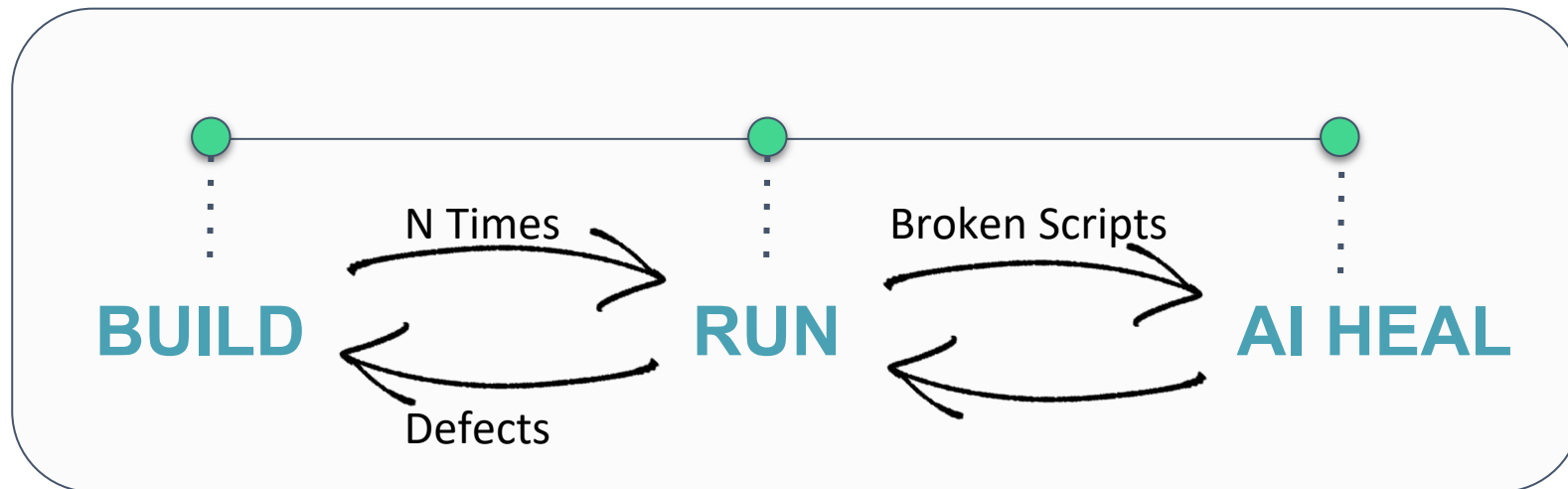


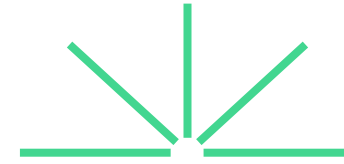
HOW IT WORKS

SETUP



MAINTENANCE





OUR SUPERPOWER IS AI HEALING

Traditionally, **80%** of test case automation is maintenance is AFTER the automation is created. When automation is not up-to-date with software, releases are delayed.

Maintenance can be **VERY expensive** or worse, is passed on to your customers to find bugs that escape into production.



With AI Healing, test cases & test scripts are maintained for you.

Stage 1 : Set Up & Run Webo.Ai

Step 2 :Generate

AI Engine generates strategy, 10 test cases with Automation

AiHealing Automation Run Month One

Run Automation

Run Automation

AiHealing Automation Run Month Two

Run Automation

<https://webo.ai/free-trial-registration>

Step 1 :Setup

Register & Onboard your application

Step 3 : Generate More

Live Review. Ai Generates Strategy + 50 Test cases with Automation

Run Automation - Start your Subscription Month Three @ \$999 a month



READY TO FREE YOUR TEAM?

1. Go to www.Webo.ai
2. Confirm test strategy and generate 50 test cases with automation 24 hours
3. Live call to review and modify



Enroll in a two-month free trial with no contract and no credit card.

LET'S TALK



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