

Why Do Companies Need QA?



- A production bug can **cost a company millions** and damage its reputation
- A good QA process helps **identify and fix** these issues before they impact users.

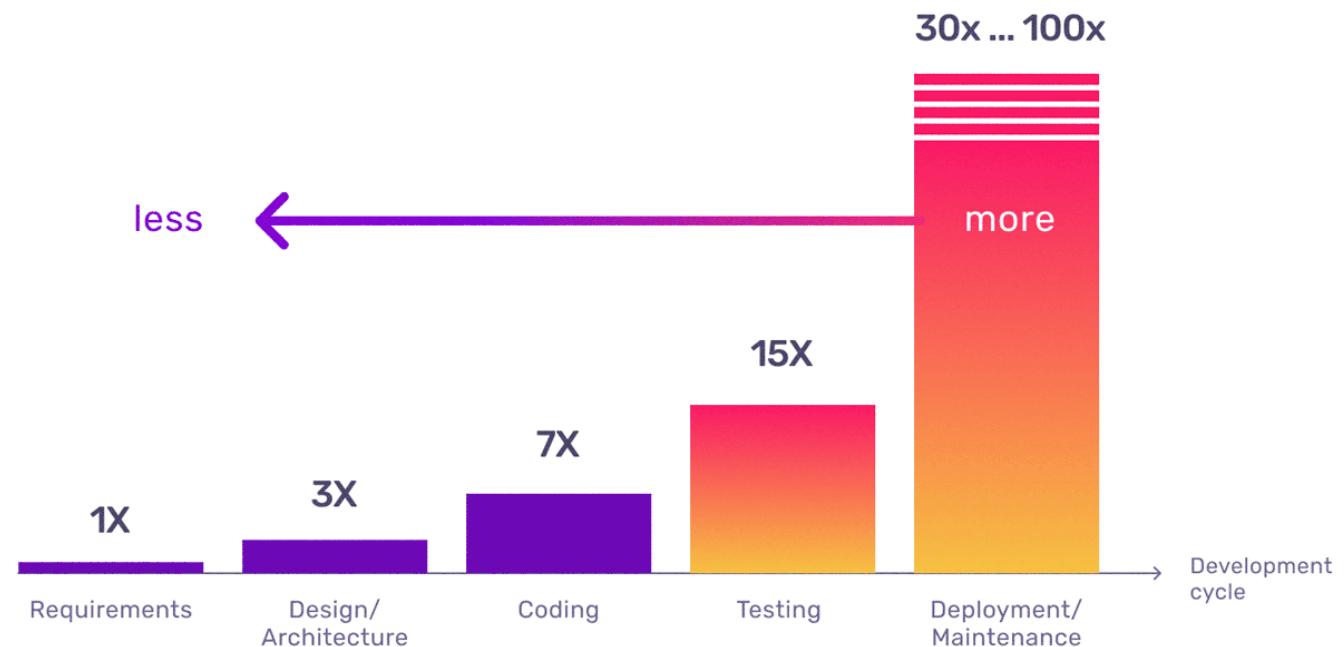
⌚ Real Examples:

- **Amazon:** A bug in 2017 caused an S3 outage, impacting thousands of businesses.

→ **Estimated loss: \$150M**

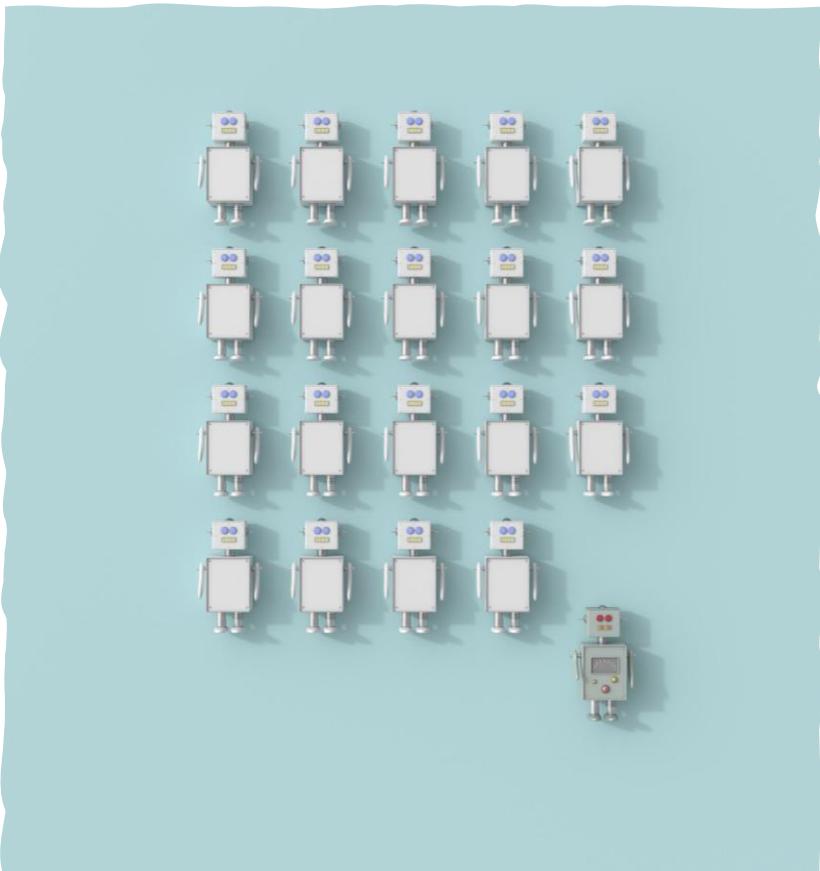
- **Knight Capital Group:** A software error cost **\$440M in 45 minutes.**

Cost of Defects



The more time we save your team, the more time they have to find bugs sooner.
That Saves Money

The QA: A Key Player in the Team



QA does not work alone!

It collaborates with:

-  **Developers** → Helps prevent bugs from the design phase.
-  **Designers** → Ensures the user experience is consistent.
-  **Product Owners/PM** → Ensures that functionalities align with business needs.
-  **Clients/Stakeholders** → Provides reports and assists in decision-making.

Integration Methods Based on the Team:

- **In Agile Mode (Scrum, Kanban)**
→ Participates in daily meetings, refines tickets early, and tests continuously.
- **In V-Model / Waterfall Approach**
→ Prepares comprehensive test plans upfront and conducts final-stage testing.

Why QA should not be seen as a "roadblock"? ↗ "QA does not criticize; it secures!"

- It **prevents risks** before they reach production.
- It does **more than just report bugs**; it also suggests **improvements** (performance, accessibility, ergonomics...).
- It **helps avoid conflicts** by providing objective facts (logs, reproducible tests...).

How to Properly Integrate a QA into a Team?

- **From the Design Phase** → Include QA in product discussions and specifications.
- **Daily Collaboration** → Participate in meetings to identify risks early.
- **Alignment with Developers** → Define clear acceptance criteria.
- **Transparency with Stakeholders** → Explain priorities and test coverage.

⚠ Common Challenges Faced by QA:

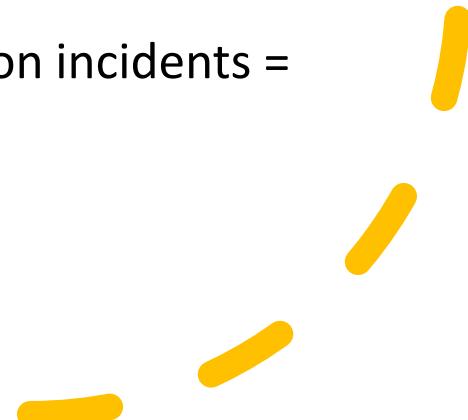
-  **QA arrives too late** → It is only integrated at the end, in "Test & Fix" mode.
 -  **Resistance from developers** → "This bug doesn't exist on my machine!"
 -  **Testing is not a priority** → Time-to-market takes precedence over quality.
 -  **Lack of appropriate tools** → Reporting is requested without providing solutions.
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- **Solution:** Educate the team on the importance of QA and focus on **prevention rather than correction**.

What is (wrongly) expected from QA

- "QA guarantees that there will be NO bugs in production" → QA reduces risks but cannot test everything.
- "QA is responsible for defects that make it to production" → Undetected defects are often due to a lack of time, resources, or coverage.
- "QA slows down the project with too much testing" → Testing anticipates costly problems.
- "QA must test everything manually" → Automation and exploratory testing complement each other.
- **What QA actually does:**
 - Prioritizes tests based on risk → We don't test everything, we test smartly.
 - Identifies inconsistencies from the design phase → Challenges tickets even before development starts.
 - Facilitates communication between dev, PO, and business → Translates technical risks into business issues.
 - Adapts to project constraints → Uses existing tools rather than imposing a new workflow.

Why QA is an Investment, Not a Cost?

- ◇ **90% of production incidents** are caused by untested changes (*Source: IBM Systems Science*).
 - ◇ A bug detected in **production costs up to 100x more** than one fixed during the design phase (*Source: Capers Jones*).
 - ◇ Companies that invest in QA **reduce software maintenance costs by 40%**.
-  **The Direct Benefits of QA:**
 - Reduction of maintenance costs** → Fewer fixes required after deployment.
 - Improved customer satisfaction** → Fewer regressions = better user experience.
 - Time savings for developers** → Less rework and fewer urgent fixes.
 - Faster time-to-market** → Fewer production incidents = smoother deliveries.





QA Strengthens Customer and User Trust

- ◇ **88% of users do not return** to a site after a bad experience (*Source: Gomez Report*).
 - ◇ A single critical bug can **cause up to 30% of potential customers to leave** (*Source: IEEE*).
 - ◇ Companies that invest in QA **improve customer retention by 20 to 30%*.
- **🔍 How does QA directly impact user experience?**
- ✓ **Fewer bugs = higher customer satisfaction** → A reliable application reassures users.
- ✓ **Usability & accessibility testing** → An easy-to-use product reduces frustration.
- ✓ **Performance and speed** → A slow or unstable site drives users away.
- ✓ **Service reliability** → A crash during a transaction can cause a customer to leave forever.

QA: A Sustainable Investment for the Future

💡 Why is QA essential for the future?

Anticipating technological advancements →

Adapting to new architectures, AI, and microservices.

Enhanced security → Preventing cyberattacks through rigorous testing.

Optimized user experience → More intuitive and high-performing products.

Reduction of technical debt → Less costly maintenance and greater flexibility.

