

Machine learning root cause analysis of Jira Issues



Categorizes functional causes of software defects from your problem reports

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01. Challenges

Software engineers have to understand the root cause to fix a defect. But they don't typically see or understand the trend.

02. Facts

Root causes are related to development gaps and tend to pop up in multiple places

03. Requs Ai Causality

Reads your problem reports and tags them to the common defect enumerations

04. Requs Ai Core Value and ROI

Adds historical data to the the Requs Ai Software FMEA occurrence computations

05. Target users

Software engineers or managers

06. Solution demo and next steps

How to get started Requs AI Causality

The functional root causes

10 common defect types and multiple functional root causes

Defect Type	Count	Failure Modes	Root Cause
State Management	17	Loss of state management	Prohibited transitions, stuck states, etc.
Error Handling	32	Undetected system failures	Hardware/software/comms faults ignored
Functionality	9	Software does wrong thing	Unwritten assumptions, extra/ missing functions
Processing	10	Can't execute entire mission	Peak loading or endurance limits exceeded
Timing	9	Real-time requirement not met	Scheduling, race conditions, etc.
Usability	12	Doesn't support users needs	Interface causes critical mistakes
Data	10	Conflicts with data	Unit, scale, type, or missing data mismatches
Sequences	2	Out-of-order functions	Dependencies not enforced
Algorithms	9	Insufficient algorithms	Wrong or incomplete algorithms
ML Models	21	Wrong predictions	Population, process, or model errors

Requs Ai Causality Features

NLP/ML

Reads your defect tracking reports

- NLP extracts the key text that identifies the functional root cause
- ML model tags at least one CDE to each defect report

AI Automation

Just export your problem reports from Jira and the software does the rest

- Supports the likelihood predictions in Requs Ai Software FMEA with your historical data

Agile Speed

Laser focused edge case mitigation

- Rapid setup process
- Focus on the CDEs that have affected your program because those are likely to be system wide

REQUS AI Causality Return On Investment



**Option 1: Ineffective
Guessing leads to
wasteful effort**

You may be fixing
processes for root causes
that aren't dominant
while missing the ones
that are



**Option 2: Manual CDE
Analysis**

Cost/Time: Moderate
cost, weeks of effort



**Option 3: REQUS AI
Edge Case Prediction
AI-powered detection**

Cost/Time: Low cost,
days of effort



**Option 4: REQUS AI
Edge Case/
Causality/Requs AI
Blueprint**

ML/NLP power

Cost/Time: Lowest cost,
fastest implementation

Key Summary

REQUS AI solutions:

- Reduce analysis time from weeks to days
- Cut costs by 50–70% vs manual methods
- Increase detection accuracy by 3–5x

Comparison: REQUIS AI vs Traditional Testing Tools

See how our predictive approach fundamentally differs from automation and management tools by addressing edge cases proactively rather than reactively.

1

REQUIS AI Edge Case Prediction/Requis Ai Causality/Requis Ai Blueprint

- **Predictions capability:** Advanced ML models predict 92% of edge cases before execution
- **SDLC Stage:** Integrated from requirements phase through maintenance
- **Edge Case Handling:** Proactively identifies and prioritizes edge cases
- **Technical Requirement:** AI/ML infrastructure with historical test data
- **Output:** Predictive risk reports with mitigation recommendations

2

Selenium

- No predictive capabilities – executes predefined scripts
- Primarily testing phase execution
- Only tests explicitly programmed scenarios
- Browser automation framework with programming skills
- Pass/fail reports of executed test cases

3

Xray/TestRail/Zephyr

- No predictive analysis – only test management
- Test planning through execution tracking
- Edge Case Handling: identification and documentation
- Test management platform integration
- Test execution metrics and coverage reports

Target users of Requs Ai Causality



Software Engineers & Testers

- Prioritize the relevant CDEs based on historical events from your organization
- Provide support for edge case testing priorities



Software management

- Provide evidence to your software team of the true functional causes of defects
- Develop laser focuses processes to reduce entire classes of CDEs

Get Started: Licensing and Trial Options



Flexible Licensing

- Dedicated and floating license options available
- Yearly subscription or perpetual licensing models
- Cloud and enterprise deployment configurations supported



Schedule Demo

- See your hidden defect risks today with a personalized demonstration session
- Contact sales@missionreadysoftware.com for scheduling
- Personalized demonstration of your specific use case
- Discover hidden defect risks in your projects



Start Trial

- Get hands-on experience with desktop version or try the cloud trial immediately
- Desktop trial version available for download
- Cloud trial at <https://requisaipredict.com> instantly accessible
- Experience full functionality with sample projects



Ready to save time and money, identify root causes before you write code?
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