

How Generative AI Changes Testing and SDLC

A. Introduction

Software Development Life Cycle (SDLC) is a systematic methodology used for software development. The process include plan, design, create, **test**, deploy, and maintain software.

B. Benefit of using Generative AI for Testing

The rising of Generative AI may be utilized to benefit SDLC. Generative AI streamlines the development process by automating repetitive tasks and reducing the need for manual intervention.

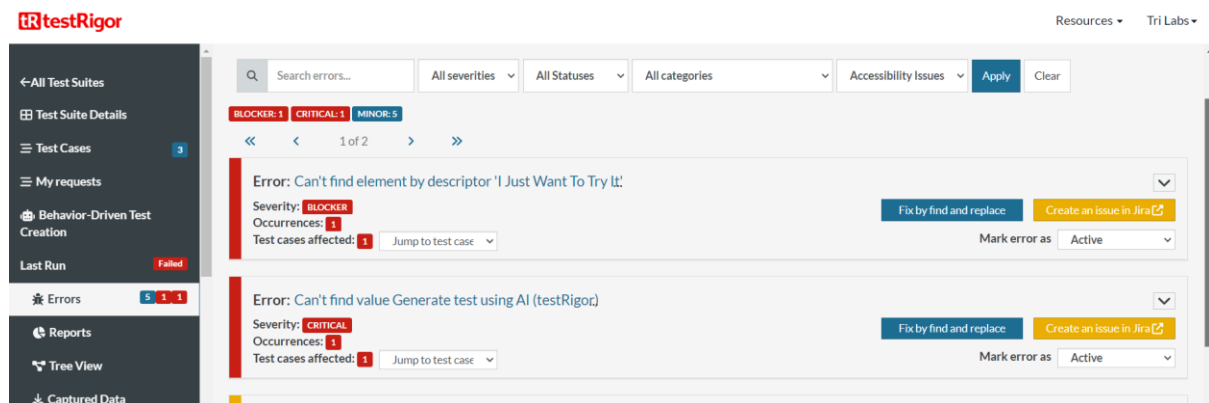


Figure 1. Test Suite

Table 1. Some Benefits of using Generative AI for Testing

No	Benefits
1	Automated Testing
2	Test Case Generation
3	Bug Detection and Prediction
4	User Scenario Simulation
5	Accelerated Development

C. Impacts

Generative AI may usher a new era in software testing and the SDLC by automating tasks, predicting bugs, and creating comprehensive test cases.

Add a new custom steps test case



Please, enter test case description and steps

Description:

Generate test using AI (testRigor)

Generate sample test using AI

Generate actual test using AI

Custom steps new line separated:

[? Documentation](#)

enter "James" into "First Name"
enter "Gatsby" into "Last Name"
generate unique email, then enter into "Email" and save as "newEmail"
enter "11020" into "Zip Code"
click "Food Inspector"
click "Apply Now"
click "Ok" until page contains "Podcast"

Single line should contain a custom step in format action "value"

Add and Run

Figure 2. Generate Test using AI

D. Challenges

By utilizing Generative AI in testing, we have to ensure the accuracy of generated test cases, addressing false positives/negatives, and maintaining data privacy are critical considerations that need to be addressed.

However, generative AI in software development holds tremendous potential. It will likely evolve and these challenges could be mitigated.