

# Test Strategy and Execution Plan for TradeTracker.com

## I. Introduction

The test strategy for TradeTracker.com outlines the approach, methodologies, tools, and reporting mechanisms for testing the PHP-based corporate website. The goal is to ensure the quality, reliability, security, and performance of the website while adhering to Agile principles and practices.

## II. Objective

The primary objective of the test strategy is to validate all features and functionalities of TradeTracker.com, identify and mitigate potential risks, and ensure a seamless user experience for advertisers and publishers.

## III. Scope

- Website Functionality Testing
- Security Testing
- Performance Testing
- End-to-End Flow Testing
- API Testing

## IV. Testing Approach

**Agile Testing Methodology:** Adopt an Agile testing approach with continuous testing practices, emphasizing collaboration, feedback, and early defect detection.

**Shift-Left Testing:** Integrate testing activities early in the development lifecycle to identify and address issues sooner, reducing rework and enhancing overall efficiency.

**Risk-Based Testing:** Prioritize testing efforts based on potential impact and likelihood of defects, focusing on critical functionalities and high-risk areas first.

## V. Testing Type

**Functional Testing:** Validate all features and functionalities of TradeTracker.com against specified requirements.

**Security Testing:** Identify and mitigate security vulnerabilities, including SQL injection, XSS, and authentication bypass.

**Performance Testing:** Evaluate the performance and scalability of TradeTracker.com under various load conditions.

**End-to-End Flow Testing:** Validate end-to-end user scenarios and workflows across TradeTracker.com.

**API Testing:** Verify the integration and functionality of APIs used by TradeTracker.com.

## **VI. Testing Tools**

**Functional Testing:** Playwright

**Security Testing:** OWASP ZAP, Burp Suite

**Performance Testing:** Apache JMeter, Gatling

**End-to-End Flow Testing:** Playwright

**API Testing:** Postman, REST Assured

## **VII. Reporting**

- Test execution reports will be generated after each testing phase.
- Reports will include test case results, defects identified, and recommendations for improvement.
- Reports will be shared with stakeholders including the development team, product owners, and management.

## **VIII. Business Requirements and Quality Attributes**

Gather detailed business requirements and quality attributes from stakeholders. Ensure TradeTracker.com meets functional specifications, user stories, and acceptance criteria.

Document quality attributes such as performance benchmarks, security standards, and usability guidelines.

## **IX. Timeline and Milestones**

- Plan testing activities in alignment with Agile development sprints.
- Test and deploy each user story or feature within a few days.
- Define key testing milestones including sprint planning, test design, execution, and retrospective.

## **X. Conclusion**

The test strategy outlined above aims to ensure the quality, security, and performance of TradeTracker.com. By leveraging Agile testing principles, comprehensive test coverage, appropriate testing tools, and effective reporting mechanisms, we aim to deliver a reliable and user-friendly platform for advertisers and publishers.