Performance Testing - Effort Estimate

# Project Information

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| Project Name | E-Commerce website Performance Testing |
| Project Manager |  |
| Testing Start Date |  |
| Testing End Date |  |

# Scope of Performance Testing

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| --- | --- |
| Application / Module to be tested | 1. User Login 2. Product Search 3. Filtering product 4. Shopping cart 5. Checkout process |
| Types of Performance Testing | 1. Load Testing ( 1000 Concurrent users) 2. Stress Testing (Identify the breaking point) 3. Soak Testin ( 8 Hours continuous load) 4. Spike Testing (1,000 to 20,000 Users) |
| Performance Goals / SLAs | Page load time < 2 seconds, Handle 1,000 concurrent users, checkout process < 5 seconds |

# Test Environment setup

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| Task | Estimated Hours | Resource required |
| Environment setup | 2 | 1 System Administrator |
| Tool configuration | 4 | 1 Performance Engineer |
| Data Preparation | 4 | 1 Performance Engineer |
| Total | 10 Person-Hours |  |

# Test Planning and Design

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| Task | Estimated Hours | Resource required |
| Requirement Analysis | 6 | 1 Performance Test Lead |
| Test Plan creation | 8 | 1 Performance Test Lead |
| Test case Design | 16 | 2 Performance Test Engineers (8 hours each) |
| Script development | 32 | 2 Performance Test Engineers (16 hours each) |
| Total | 62 Person Hours |  |

# Test Execution

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| --- | --- | --- |
| Task | Total Person – Hours | Resources Assigned |
| Initial Test Run | 8 hours | 2 Performance Test Engineers (4 Hours each) |
| Load Test execution | 16 Hours | 2 Performance Test Engineers  (8 Hours each) |
| Stress Test Execution | 16 Hours | 2 Performance Test Engineers  (8 Hours each) |
| Soak Test execution | 32 Hours | 2 Performance Test engineers  (16 hours each) |
| Spike Test Execution | 16 Hours | 2 Performance Test Engineer  ( 8 Hours each) |
| Total | 88 person-hours |  |

# Monitoring and Analysis

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| Task | Total Person-Hours | Resources Assigned |
| Real-Time Monitoring | 32 Hours | 2 Performance Testing Engineer  (16 hours each) |
| Log Collection | 16 hours | 2 Performance test engineers  8 hours each |
| Data analysis | 32 Hours | 2 Performance test engineers  (16 hours each) |
| Total | 80 person hours |  |

# Reporting

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| --- | --- | --- |
| Task | Total Person-Hours | Resources Assigned |
| Report Generation | 8 hours | 1 Performance Test Lead |
| Results Review | 4 hours | 1 Performance test lead |
| Recommendations | 4 hours | 1 Performance test lead |
| Total | 16 hours |  |

# Review and Retrospective

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| Task | Total Person-hours | Resources |
| Review meeting | 4 hours | 1 Performance test lead, 1 Engineer (2 hours each) |
| Retrospective analysis | 8 hours | 1 Performance test lead, 1 engineer (4 hours each) |
| Process improvement | 8 Hours | 1 Performance test lead, 1 Engineer ( 4 hours each) |
| Total | 20 Hours |  |

# Contingency

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| Task | Total person hours | Resources Assigned |
| Unexpected issues | 8 Hours | 1 Performance test engineer |
| Additional Testing | 8 hours | 1 Performance Test engineer |
| Total | 16 person-hours |  |

1. Total effort

Total estimated hours: 332 person-hours

Total resources required:1 performance test lead, 2 Performance test engineers, 1 system administrator, 1 engineer.

Notes:

Buffer Time: Added 10% buffer for unexpected delays.

Historical Data: Estimated refined based on past project data.

Team collaboration: Estimates validated through team discussion.