

STP Document

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Purpose Of This Document

The purpose of this document is to delineate a comprehensive test automation strategy specifically tailored for Monday.com's website, utilizing Selenium Grid with Python. This strategy is designed to ensure a systematic approach to validating the functionality, performance, reliability, and user experience of the Monday.com platform. By defining the scope, methodologies, resources, and timelines for the testing activities, this document aims to serve as a roadmap for the QA team. It facilitates effective planning, execution, and management of test cases, enabling the identification and resolution of potential issues before they impact end-users. Additionally, this document will act as a communication tool among project stakeholders, providing clear insights into the testing process, objectives, and outcomes. The ultimate goal is to uphold and enhance the quality and performance of Monday.com, thereby assuring a seamless, efficient, and productive experience for its users.

Description Of the Monday.com System

Monday.com is a versatile, cloud-based Work Operating System (Work OS) that empowers teams to run projects and workflows with confidence. Launched in 2012, it's designed to simplify the way teams work together, offering a suite of tools that facilitate project management, CRM, marketing, software development, and more. At its core, Monday.com enables users to customize workflows to fit their specific needs, promoting transparency, collaboration, and efficiency across various functions.

Purpose: The primary purpose of Monday.com is to provide a centralized platform for teams to plan, execute, and track work in a collaborative environment. It caters to businesses of all sizes, from startups to global enterprises, offering features such as task assignment, time tracking,

automations, dashboards, and integrations with popular tools. By streamlining communication and centralizing data, Monday.com aims to boost productivity, enhance decision-making, and drive better business outcomes. The platform's flexibility and user-friendly interface make it an indispensable tool for managing complex projects and processes, fostering a culture of transparency and accountability within organizations.

Key Features and Functions for Monday.com:

Key Features:

1. **Project and Task Management:** Users can create, assign, and track tasks and projects, organizing them into boards for a visual overview of progress.
2. **Workflow Automation:** Automate repetitive tasks and set up custom workflows to streamline operations, reducing the need for manual input and increasing efficiency.
3. **Time Tracking:** Enables users to record the time spent on tasks directly within the platform, facilitating better project management and productivity analysis.
4. **Collaboration Tools:** Integrated messaging, file sharing, and comment sections within tasks and projects to enhance team collaboration and communication.
5. **Customizable Dashboards:** Users can create personalized dashboards to monitor key metrics, project progress, and performance insights at a glance.
6. **Integrations:** Offers a wide range of integrations with other tools and apps such as email, calendar, CRM, and more, allowing for a seamless workflow across platforms.
7. **Resource Management:** Provides tools for managing resources effectively, enabling managers to allocate tasks based on team members' availability and workload.
8. **Reports and Analytics:** Generate detailed reports and gain valuable insights into project performance, team productivity, and time management.
9. **Access Controls and Permissions:** Customizable user permissions to control access to information and functionalities, ensuring data security and integrity.

Stakeholders:

1. Team Members: Individuals who use Monday.com for day-to-day task and project management, relying on its features to organize their work and collaborate with colleagues.
2. Project Managers: Professionals responsible for planning, executing, and tracking projects. They utilize Monday.com to oversee project progress, allocate resources, and ensure deadlines are met.
3. Business Leaders: Executives and managers who use the platform to get a high-level view of business operations, make informed decisions, and drive strategic planning.
4. IT and System Administrators: Individuals responsible for configuring and maintaining the Monday.com setup within an organization, ensuring that the platform meets the company's needs and security standards.
5. HR Managers: Use Monday.com for onboarding, tracking employee performance, and managing various HR processes efficiently.
6. Marketing Teams: Leverage Monday.com to plan and execute marketing campaigns, track performance, and collaborate on creative projects.
7. Sales Teams: Utilize the CRM features to manage leads, track sales pipelines, and forecast revenue.
8. Customer Support Teams: Use the platform to track support tickets, manage customer inquiries, and ensure timely responses.
9. Software Development Teams: Employ Monday.com for agile project management, bug tracking, and version control integration.
10. External Collaborators: Clients, vendors, and other external partners who collaborate on projects using Monday.com, benefiting from its communication tools and shared workspaces.

Glossary and Abbreviations

Glossary

- GUI (Graphical User Interface): The design of user interfaces based on specified requirements.
- Functional Testing: Verification that fundamental system functions operate correctly.
- Maintenance Testing: Examination of the functionality of a modified system following changes, updates, or alterations in the working environment.
- STP (System Test Plan): A comprehensive project planning document encompassing strategy, schedule, and topic tree.
- STD (System Test Design): Detailed documentation outlining the testing plan.
- STR (System Test Results): A concise document summarizing test results after three cycles.
- Traceability Matrix: A document that correlates any two baselined documents that require a many-to-many relationship to determine the completeness of the relationship.

Abbreviations

- QA: Quality Assurance
- CEO: Chief Executive Officer
- HR: Human Resources

Testing Plan

- The tester will communicate the requirements to the development team based on the planned tests. The development team will work according to these requirements to maximize efficiency.

Resources: 1 tester will be assigned to this project.

Hardware Needs:

1. Computers:

- High-performance desktops or laptops to run test scripts and perform manual testing.

2. Network Equipment:

- Routers and switches to simulate different network conditions for testing YouTube's performance under various network scenarios.

3. Virtual Machines:

- Set up virtual machines for testing on different operating systems and browser combinations.

Software Needed:

1. Operating Systems:

- Install and configure operating system for testing: Windows.

2. Browsers:

- Latest versions of popular browsers (Google Chrome, Microsoft Edge, Firefox) for cross-browser compatibility testing.

3. Automation Testing Tools:

- Selenium and Selenium Grid for automating functional tests across web platforms.

4. Database Management System:

- Database systems (MySQL, PostgreSQL) for testing Monday.com's data handling and retrieval functionality.

5. Test Management Tools:

- Test case management tools (e.g., **TestRail**, **Jira**) to organize, execute, and track test cases.

Before the start of testing rounds, **functional tests** will be performed, including:

- 1) **Unit Testing:** To test individual units or components of a software application.
- 2) **Sanity Testing:** To verify that the most important functionalities of a software application work correctly.
- 3) **Integration Testing:** To verify the interactions and interfaces between different components or systems within the application.
- 4) **Regression Testing:** To ensure that new code or changes do not affect the existing functionality of the software.
- 5) **API Testing:** To validate the functionality of an API by testing its endpoints and request-response mechanisms.
- 6) **UI Testing:** To validate that the user interface elements and interactions function correctly according to the design.
- 7) **End-to-End Testing:** To evaluate the entire software system's functionality from start to finish, simulating real user scenarios and interactions.

Afterwards, the following **non-functional tests** will be conducted including:

- 1) **Performance Tests (Load + Stress + Volume):** they assess how well a system performs under various conditions, including heavy loads, stressful situations, and large data volumes.
- 2) **Upgrade and Installation Test:** Upgrade and installation tests verify the smooth installation of software upgrades and updates, ensuring that the system remains stable and functional.
- 3) **Recovery Tests:** they assess how well a system can recover from failures including data loss or system crashes.
- 4) **Localization and Globalization Testing:** Localization testing verifies that a software application adapts to specific regional or cultural requirements, while globalization testing ensures its compatibility with diverse international settings.
- 5) **Usability Testing:** evaluates the user friendliness and overall user experience of a software application to ensure it meets user expectations.
- 6) **Compatibility Testing:** Compatibility testing ensures that a software application works seamlessly across different devices, browsers, operating systems.

Starting and exiting Criteria

- **Criteria for starting the tests:**

- Sanity Testing Completion: 100% of the planned sanity tests have been carried out and passed successfully, ensuring the application's basic functionalities work as expected.
- Test Case Preparation: 100% of planned functional and non-functional test cases have been created, reviewed, and linked to specific requirements via a traceability matrix. This ensures a comprehensive coverage of all features and functionalities of Monday.com.
- Testing Environment Readiness: The testing environment, including necessary configurations, data, and tools (such as Selenium Grid, Python environment), is prepared, verified, and fully operational. This includes the setup of virtual machines, mobile emulators/simulators, and integration of all required third-party services.
- Test Data Availability: Sufficient and accurate test data for both positive and negative testing scenarios is available and validated. This includes data for project management tasks, workflows, user permissions, and third-party integrations.
- Test Plan Approval: The test plan, detailing the testing scope, approach, objectives, resources, and schedule, has been thoroughly reviewed and approved by the project stakeholders, including the QA team leader and project manager.

- **Completion/Release Criteria:**

- Test Execution Completion: 100% of the planned functional and non-functional tests have been executed, with all results documented and analyzed. This includes tests for usability, performance, security, compatibility, and integration.
- Pass Rate Achievement: At least 90% of the test cases have passed successfully. This higher threshold (compared to 75%) is set to ensure a more rigorous assessment of Monday.com's functionality and reliability.
- Critical Bug Resolution: All identified critical bugs have been fixed and verified. Critical bugs are defined as those that significantly impact the core functionalities, data integrity, or security of Monday.com.
- Low Severity Bugs: Any remaining bugs are classified at low severity levels and do not impact the overall functionality or user experience in a significant way. A documented plan for addressing these issues in future updates is established.
- Stakeholder Sign-off: The final testing report, including a summary of test outcomes, bug reports, and recommendations for improvements, has been reviewed and signed off by key stakeholders. This ensures consensus on the application's readiness for release or deployment.

Planned Schedule

A step in the project process	Start date	End date
Preparation of STP document	23.02.2024	24.02.2024
Preparation of STD document	24.02.2024	24.02.2024
Round of tests #1	06.02.2024	06.02.2024
Round of tests #2	06.02.2024	06.02.2024
Round of tests #3	06.02.2024	06.02.2024
Round of tests #4	06.02.2024	06.02.2024
Round of tests #5	06.02.2024	06.02.2024
Round of tests #6	06.02.2024	06.02.2024
Round of tests #7	06.02.2024	06.02.2024
Round of tests #8	06.02.2024	06.02.2024
Round of tests #9	06.02.2024	06.02.2024
Round of tests #10	06.02.2024	06.02.2024
Preparation of STR document	03.03.2024	03.03.2024

Traceability table

Test Tree

Application Testing

- |-- 1. Valid Login
 - | |-- Verify login with valid credentials
 - | |-- Check redirection to dashboard after login
 - | |-- Confirm display of user profile information
- |
- |-- 2. Contact Management
 - | |-- Create a new contact in CRM
 - | |-- Verify storage and display of contact details
 - | |-- Edit and update contact information
- |
- |-- 3. Dark Mode
 - | |-- Enable dark mode from settings
 - | |-- Verify UI changes to dark mode
 - | |-- Disable dark mode and revert to light mode
 - | |-- Confirm UI reverts to default light mode
- |
- |-- 4. Changing Priority
 - | |-- Change priority level of a task
 - | |-- Confirm UI reflects priority changes
- |
- |-- 5. Deleting a Single Task
 - | |-- Delete a task from the task list
 - | |-- Confirm removal from UI
- |
- |-- 6. Deleting All Tasks
 - | |-- Delete all tasks from the board
 - | |-- Confirm the task board is empty
 - | |-- Check immediacy of deletion reflection in UI
- |
- |-- 7. Undo Functionality
 - | |-- Undo a task deletion or addition
 - | |-- Confirm previous action is reversed
- |
- |-- 8. Search Functionality

- | |-- Perform a search within the application
- | |-- Verify accuracy of search results
- | |-- Confirm search results are user-friendly
- |
- |-- 9. Filtering Tasks
- | |-- Apply filters to task view
- | |-- Verify correct task display based on filters
- | |-- Check responsiveness with multiple filters
- |
- |-- 10. Exporting Data
- | |-- Export tasks or contacts to a file
- | |-- Confirm completeness and accuracy of exported data
- | |-- Check availability of export options

Hazard Table

#	Hazard	Chance	Damage	Risk Level	Hazard Description	Action	Description	Responsible
1	DDoS Attacks	Low	High	Moderate	Disruption of service due to targeted cyber attacks.	Mitigate	Implement advanced DDoS protection and monitoring systems.	IT Security
2	Data Breach	Low	High	Moderate	Unauthorized access leading to data leakage.	Prevent	Use encryption, secure access protocols, and regular audits.	IT Security
3	Service Downtime	Medium	High	Moderate	Unexpected outages affecting user access.	Recover	Deploy redundant systems and perform regular backup.	Operations
4	Feature Malfunction	Medium	Medium	Moderate	Bugs or glitches causing feature failures.	Fix	Implement comprehensive testing and	Development Team

							rapid bug-fix procedures.	
5	Slow Performance under Load	High	Medium	High	Degraded performance during peak usage times.	Optimize	Scale infrastructure and optimize code for performance.	IT Operations
6	User Data Misconfiguration	Medium	High	Moderate	Incorrect settings leading to data exposure or loss.	Educate	Provide clear documentation and user training.	Customer Support
7	Integration Failures	Medium	Medium	Moderate	Third-party integrations not working as expected.	Monitor	Regularly test integrations and have contingency plans.	Integration Team
8	Compliance Violations	Low	High	Moderate	Failing to meet regulatory requirements.	Comply	Regular updates to comply with new regulations.	Compliance Officer
9	Project Data Loss	Low	Very High	High	Loss of critical project data due to bugs or failures.	Backup	Implement robust data backup and recovery strategies.	IT Operations
10	Inadequate User Training	Medium	Medium	Moderate	Users making mistakes due to lack of understanding.	Train	Offer comprehensive training materials and sessions.	Customer Success