Tooltip Companion - Product Requirements Document

Executive Summary

Product Name: Tooltip Companion

Version: 1.0

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Product Type: User Experience Enhancement Platform

Tooltip Companion is an intelligent user assistance system that provides contextual help, guided workflows, and issue tracking directly within web applications. The platform combines interactive tooltips, video demonstrations, progress tracking, and integrated bug reporting to reduce user friction and improve task completion rates.

Problem Statement

Users frequently struggle with complex web applications due to:

- Lack of contextual guidance on unfamiliar features

- Difficulty understanding multi-step workflows

- Inability to track progress through complex processes

- Frustration when encountering bugs with no easy reporting mechanism

- Time lost searching for help documentation or support

Product Vision

Create an intelligent, non-intrusive companion that guides users through any web application with contextual help, progress tracking, and seamless issue reporting, ultimately reducing support tickets and improving user satisfaction.

Target Audience

Primary Users:

- End users of complex web applications (SaaS platforms, admin dashboards, e-commerce tools)

- Business users completing multi-step workflows

Secondary Users:

- Product managers seeking usage insights

- Support teams managing user issues
- Developers needing user feedback integration

Core Features

1. Contextual Tooltip System

1.1 Interactive Tooltips
- Hover-activated tooltips on UI elements (buttons, forms, navigation items)
- Smart positioning that adapts to screen boundaries and element location
- Rich content support including text, images, and embedded videos
- Layered information with expandable details for complex features

1.2 Video Integration
- Thumbnail previews that appear on hover with play button overlay
- Inline video playback without leaving the current page
- Smart video selection based on user context and current workflow
- Video library management with automatic content optimization

1.3 Content Sources
- Manual content creation through admin interface
- Documentation scraping from existing help systems
- Page analysis to automatically detect interactive elements
- Dynamic content updates based on page changes

1.4 Technical Implementation

```javascript
// Example tooltip activation
TooltipCompanion.init({
selectors: ['button', '[data-tooltip]', '.help-trigger'],
contentSources: ['manual', 'docs', 'video'],
positioning: 'smart',
triggers: ['hover', 'click', 'focus']
});
```

2. Guided Progress Tracking

2.1 Workflow Detection
- Automatic workflow recognition based on user navigation patterns
- Custom workflow definition for specific business processes
- Multi-session progress retention across user visits
- Branching workflow support for conditional processes

2.2 Progress Visualization
- Step-by-step indicators showing current position in workflow
- Completion percentage with visual progress bars
- Next action suggestions with clear call-to-action buttons
- Alternative path recommendations when users deviate from optimal flow

2.3 "What are you trying to do?" Hub
- Intent-based navigation with search and category browsing
- Smart suggestions based on user history and current context
- Quick access shortcuts to frequently used features
- Visual workflow previews showing step-by-step process overview

2.4 Navigation Enhancement
- Breadcrumb enhancement with progress context
- Smart next/previous buttons for multi-step processes
- Contextual menu additions showing relevant next steps
- Floating progress widget for complex workflows

3. Integrated Bug/Issue Tracker

3.1 Issue Reporting Interface
- One-click reporting from any page location
- Contextual issue capture with automatic screenshot and element highlighting
- Issue categorization with predefined templates (bug, feature request, question)
- Severity selection with impact assessment guidance

3.2 Automatic Data Capture

```javascript
// Automatic diagnostic data collection
const diagnosticData = {
correlationId: generateCorrelationId(),
timestamp: new Date().toISOString(),
userAgent: navigator.userAgent,
viewport: getViewportSize(),
url: window.location.href,
userId: getCurrentUserId(),
sessionId: getSessionId(),
userActions: getRecentUserActions(),
consoleErrors: captureConsoleErrors(),
networkRequests: getRecentNetworkActivity()
};
```

3.3 Integration Capabilities

- Support system integration (Zendesk, ServiceNow, Jira)
- Development tool integration (GitHub Issues, Linear, Asana)
- Notification systems for real-time issue alerts
- Analytics integration for issue trend analysis

3.4 User Communication

- Issue status tracking with real-time updates
- Follow-up notifications for issue resolution
- User feedback collection on issue resolution quality
- Knowledge base integration for similar issue suggestions

Technical Architecture

3.1 Core Components

Frontend SDK
```javascript
// Main SDK initialization
window.TooltipCompanion = {
```

```
init: (config) => { / Initialize system / },
tooltip: { / Tooltip management / },
progress: { / Progress tracking / },
issues: { / Issue reporting / },
analytics: { / Usage tracking / }
};
```

Backend Services
- Content Management API for tooltip and video content
- Progress Tracking Service for workflow state management
- Issue Management API for bug reporting and tracking
- Analytics Engine for usage insights and optimization
- Integration Hub for third-party service connections

Data Layer
- User Profiles with preferences and progress history
- Content Database for tooltips, videos, and documentation
- Issue Database with full audit trails
- Analytics Warehouse for reporting and insights

3.2 Integration Methods

JavaScript SDK Integration
```html
<script src="https://cdn.tooltipcompanion.com/sdk/v1/tooltip-companion.min.js"></script>
<script>
TooltipCompanion.init({
apiKey: 'your-api-key',
userId: 'current-user-id',
features: ['tooltips', 'progress', 'issues'],
customization: {
theme: 'auto',
position: 'smart',
timing: { delay: 500, duration: 5000 }
}
});
</script>
```

WordPress Plugin

- One-click installation and activation
- Visual customization interface
- Content import from existing documentation

Browser Extension

- Works across any website
- User-generated content sharing
- Cross-site progress tracking

3.3 Content Management

Admin Dashboard Features

- Visual content editor with WYSIWYG interface
- Video upload and management with automatic optimization
- Bulk content import from documentation sources
- A/B testing tools for content effectiveness
- Usage analytics with heatmaps and interaction data

Content Types

- Text tooltips with formatting support
- Video demonstrations with thumbnail generation
- Interactive tutorials with step-by-step guidance
- FAQ collections with search functionality
- Document references with deep linking

User Experience Specifications

4.1 Tooltip Behavior

- Activation delay: 500ms hover time before showing
- Display duration: 5 seconds default, user-configurable
- Animation: Smooth fade-in/out transitions (200ms)
- Positioning: Smart positioning to avoid screen edges

- Dismissal: Click outside, ESC key, or automatic timeout

4.2 Progress Tracking UX

- Visual indicators: Progress bars, step counters, completion badges
- Persistent state: Progress saves across sessions and devices
- Smart suggestions: Context-aware next step recommendations
- Flexibility: Allow users to skip or revisit previous steps

4.3 Issue Reporting UX

- Minimal friction: Maximum 3 clicks from problem to report
- Visual feedback: Clear confirmation of submission
- Status transparency: Real-time updates on issue progress
- Follow-up engagement: Proactive communication on resolution

Success Metrics

4.1 User Engagement

- Tooltip interaction rate: Target >40% of eligible interactions
- Video completion rate: Target >60% for demonstration videos
- Progress completion rate: Target >80% for guided workflows
- Issue resolution satisfaction: Target >90% user satisfaction

4.2 Business Impact

- Support ticket reduction: Target 30% decrease in basic how-to tickets
- Task completion rate: Target 25% improvement in complex workflows
- Time to completion: Target 40% reduction in task completion time
- User retention: Target 15% improvement in monthly active users

4.3 Technical Performance

- Page load impact: <100ms additional load time
- SDK bundle size: <50KB gzipped
- Tooltip display latency: <200ms from trigger to display
- Uptime: 99.9% service availability

Security & Privacy

5.1 Data Protection

- GDPR compliance with user consent management
- Data minimization collecting only necessary information
- Encryption at rest and in transit for all user data
- Regular security audits and penetration testing

5.2 User Privacy

- Opt-out capabilities for all tracking features
- Anonymization options for usage analytics
- Data retention policies with automatic cleanup
- User data export and deletion rights

Implementation Phases

Phase 1: Core Tooltip System (Months 1-3)

- Basic tooltip functionality with hover activation
- Simple content management system
- JavaScript SDK development
- Initial video integration

Phase 2: Progress Tracking (Months 4-6)

- Workflow detection and tracking
- Progress visualization components
- "What are you trying to do?" hub
- User state persistence

Phase 3: Issue Tracking Integration (Months 7-9)

- Bug reporting interface
- Automatic diagnostic capture

- Third-party integration framework
- User communication system

Phase 4: Advanced Features (Months 10-12)

- AI-powered content suggestions
- Advanced analytics and insights
- Multi-language support
- Enterprise customization features

Resource Requirements

5.1 Development Team

- Frontend Engineers: 3 developers for SDK and UI components
- Backend Engineers: 2 developers for API and infrastructure
- DevOps Engineer: 1 engineer for deployment and monitoring
- Product Designer: 1 designer for UX/UI design
- QA Engineer: 1 engineer for testing and quality assurance

5.2 Infrastructure

- Cloud hosting with auto-scaling capabilities
- CDN for global content delivery
- Database systems for user data and content management
- Video processing infrastructure for content optimization
- Monitoring and analytics systems

Risk Assessment

5.1 Technical Risks

- Performance impact on host applications
- Browser compatibility across different environments
- Scaling challenges with high-traffic applications
- Integration complexity with existing systems

5.2 Business Risks

- User adoption resistance to additional UI elements
- Content maintenance overhead for customers
- Competition from existing user assistance tools
- Privacy concerns with user behavior tracking

5.3 Mitigation Strategies

- Extensive performance testing and optimization
- Gradual rollout with beta customer feedback
- Comprehensive documentation and support resources
- Privacy-first approach with transparent data practices

Conclusion

Tooltip Companion addresses a critical need for contextual user assistance in complex web applications. By combining intelligent tooltips, progress tracking, and integrated issue reporting, the platform can significantly improve user experience while reducing support overhead.

The phased implementation approach allows for iterative development and user feedback integration, ensuring the final product meets real user needs and business objectives.

Success will be measured through improved user engagement, reduced support tickets, and higher task completion rates, ultimately delivering value to both end users and application owners.

Playwright MCP Integration

Overview

To ensure Tooltip Companion delivers a consistent, high-quality user experience across browsers and workflows, we will integrate Playwright MCP (Model Context Protocol) as part of our testing and QA pipeline. This allows automated end-to-end testing to be directly accessible via AI-assisted workflows, enabling developers, QA engineers, and even support staff to validate functionality quickly.

Use Cases

1. Tooltip & UI Validation
- Automated tests simulate hover, click, and focus events on target selectors.

- Validate tooltip positioning, animation timing, and rich media rendering (text, images, video).
- Capture screenshots and compare against baseline expectations across Chromium, Firefox, and WebKit.

2. Workflow & Progress Tracking

- Simulate multi-step workflows to confirm accurate detection, step progression, and branching logic.
- Verify persistence of progress across sessions and devices.
- Ensure "What are you trying to do?" hub provides contextually correct navigation suggestions.

3. Issue Reporting Pipeline

- Integrate Playwright failure outputs (screenshots, console logs, network traces) with existing issue tracker integrations (Jira, GitHub Issues, Linear).
- Automatically attach diagnostic data generated by Tooltip Companion (session IDs, user actions) to test results.

4. Regression & Release Testing

- Build regression suites for each implementation phase:
- Phase 1: Tooltip activation and content rendering
- Phase 2: Workflow tracking and visualization
- Phase 3: Issue reporting UI and diagnostic capture
- Phase 4: Advanced AI-driven content and analytics
- Run full regression cycles before each release to ensure no feature regressions.

5. AI-Assisted QA

- QA and support teams can trigger Playwright tests through AI queries (e.g., "Run tooltip hover tests on the signup page").
- Results (pass/fail, screenshots, error logs) are returned directly, reducing reliance on manual scripting.

Technical Implementation

- Playwright Test Harness: Centralized repository of scripted workflows and assertions.
- MCP Integration: AI assistant communicates with Playwright MCP to execute tests and retrieve structured results.
- CI/CD Pipeline: Automated Playwright runs for pull requests and production deployments.
- Artifact Storage: Screenshots, video replays, and logs stored in CI environment and linked to issue trackers.

Benefits

- Reduces manual QA overhead and accelerates release cycles.

- Ensures cross-browser consistency for tooltips, progress tracking, and reporting flows.

- Increases confidence in stability as new features are phased in.

- Aligns with success metrics: lower support tickets, improved workflow completion, and higher user satisfaction.