**NachoGPT Testing Checklist v0.3.1**

**Test Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_  
**Tester:** \_\_\_\_\_\_\_\_\_\_\_\_\_  
**Browser:** \_\_\_\_\_\_\_\_\_\_\_\_\_  
**OS:** \_\_\_\_\_\_\_\_\_\_\_\_\_

**📋 Pre-Testing Setup**

**Installation**

* [ ] Extension loads without errors in Chrome
* [ ] Extension loads without errors in Firefox
* [ ] Extension loads without errors in Edge
* [ ] Extension icon appears in toolbar
* [ ] No console errors on extension load
* [ ] Service worker starts successfully (check chrome://extensions)

**Initial State**

* [ ] Extension popup opens with Ctrl+Shift+M
* [ ] Extension popup opens by clicking toolbar icon
* [ ] Default Quick Pick prompts are present (10 buttons)
* [ ] No chips exist by default
* [ ] Default colors are blue gradient
* [ ] Sync storage is default mode

**⚡ Quick Pick Prompts Testing**

**Viewing Quick Pick**

* [ ] Quick Pick tab displays 10 numbered buttons
* [ ] Buttons show emojis or numbers correctly
* [ ] Settings (⚙️) button is visible
* [ ] Button hover effect works
* [ ] All 10 default prompts have titles

**Editing Quick Pick**

* [ ] Click ⚙️ button opens edit modal
* [ ] All 10 prompts are listed with emojis
* [ ] Clicking any prompt opens edit dialog
* [ ] Can edit prompt title (1-100 chars)
* [ ] Can edit prompt content (1-10,000 chars)
* [ ] Can edit button emoji (1-2 chars)
* [ ] Save button saves changes
* [ ] Cancel button discards changes
* [ ] Changes persist after closing/reopening popup
* [ ] Edited emoji appears on Quick Pick button

**Using Quick Pick on AI Sites**

**ChatGPT (chat.openai.com, chatgpt.com)**

* [ ] Extension detects ChatGPT input field
* [ ] Console shows "🌮 NachoGPT loaded on chatgpt"
* [ ] Console shows "🌮 NachoGPT: Input field found!"
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears in chat input field
* [ ] Cursor moves to end of inserted text
* [ ] Can type additional text after prompt
* [ ] Can click multiple prompts in sequence
* [ ] Prompts append (don't replace existing text)

**Claude (claude.ai)**

* [ ] Extension detects Claude input field
* [ ] Console shows "🌮 NachoGPT loaded on claude"
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears correctly in contenteditable div
* [ ] Cursor positioning works correctly

**Google Gemini (gemini.google.com)**

* [ ] Extension detects Gemini input field
* [ ] Console shows "🌮 Gemini: Found input via..."
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears in textarea correctly
* [ ] Native value setter works (no React issues)

**Grok (grok.com)**

* [ ] Extension detects Grok input field
* [ ] Console shows "🌮 NachoGPT loaded on grok"
* [ ] Console shows "🌮 Grok: Starting comprehensive input search..."
* [ ] Console shows "🌮 Grok: Found input via..."
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears correctly
* [ ] execCommand or range insertion works

**Grok on X/Twitter (x.com)**

* [ ] Extension only activates on Grok interface (not regular tweets)
* [ ] Console shows detection logs
* [ ] Prompt insertion works when Grok is active
* [ ] Extension doesn't interfere with regular Twitter usage

**Microsoft Copilot (copilot.microsoft.com)**

* [ ] Extension detects Copilot input field
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears correctly

**Perplexity (perplexity.ai)**

* [ ] Extension detects Perplexity input field
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears correctly

**You.com**

* [ ] Extension detects You.com input field
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears correctly

**Poe (poe.com)**

* [ ] Extension detects Poe input field
* [ ] Click Quick Pick button inserts prompt
* [ ] Prompt appears correctly

**Quick Pick Edge Cases**

* [ ] Empty prompt (title only, no content) - should warn
* [ ] Very long prompt (9,000+ chars) - should insert successfully
* [ ] Prompt with special characters - should insert correctly
* [ ] Prompt with line breaks - should preserve formatting
* [ ] Prompt with emojis in content - should insert correctly
* [ ] Quick succession clicks - no race conditions
* [ ] Switch tabs during insertion - no errors

**🌮 Chips Testing**

**Creating Chips**

* [ ] Click "🌮 New Chip" button
* [ ] Modal opens with form
* [ ] Can enter chip name (1-100 chars)
* [ ] Can enter chip emoji (1-2 chars)
* [ ] Can enter description (0-200 chars)
* [ ] Default emoji is 🌮
* [ ] Create button creates chip
* [ ] Cancel button closes modal
* [ ] New chip appears in list
* [ ] Chip shows emoji, name, and count (0)

**Adding Prompts to Chips**

* [ ] Click + button on chip
* [ ] Modal opens for new prompt
* [ ] Can enter prompt title (1-200 chars)
* [ ] Can enter prompt content (1-10,000 chars)
* [ ] Save button adds prompt to chip
* [ ] Prompt count increments
* [ ] Prompt appears in collapsed chip list

**Viewing Chip Prompts**

* [ ] Click chip header to expand/collapse
* [ ] Prompts are indented and clearly grouped
* [ ] Can expand multiple chips simultaneously
* [ ] Expand/collapse animation is smooth

**Using Chip Prompts**

* [ ] Click prompt title inserts into active AI chat
* [ ] Prompt insertion works same as Quick Pick
* [ ] Can use prompts from different chips
* [ ] Prompt count matches actual prompt list

**Editing Chip Prompts**

* [ ] Click ✏️ button on chip prompt
* [ ] Modal opens with existing data
* [ ] Can edit title and content
* [ ] Save button updates prompt
* [ ] Changes reflect immediately
* [ ] Cancel button discards changes

**Deleting Chip Prompts**

* [ ] Click × button on chip prompt
* [ ] Confirmation dialog appears
* [ ] Confirm deletes prompt
* [ ] Prompt count decrements
* [ ] Cancel keeps prompt
* [ ] Chip remains even if empty

**Deleting Chips**

* [ ] Click × button on chip header
* [ ] Confirmation dialog appears
* [ ] Confirm deletes entire chip and all prompts
* [ ] Cancel keeps chip
* [ ] Chip disappears from list

**Chip Limits**

* [ ] Can create up to 50 chips
* [ ] 51st chip shows error message
* [ ] Each chip can hold up to 500 prompts
* [ ] 501st prompt shows error message

**📋 Standalone Prompts Testing**

**Creating Standalone Prompts**

* [ ] Click "+ Add Prompt" button
* [ ] Modal opens for new prompt
* [ ] Can enter title (1-200 chars)
* [ ] Can enter content (1-10,000 chars)
* [ ] Save button creates prompt
* [ ] Prompt appears under "📋 Standalone Prompts"
* [ ] Cancel button closes modal

**Using Standalone Prompts**

* [ ] Click prompt title inserts into chat
* [ ] Works on all AI sites
* [ ] Same behavior as Quick Pick

**Editing Standalone Prompts**

* [ ] Click ✏️ button
* [ ] Modal opens with data
* [ ] Can edit and save
* [ ] Changes persist

**Deleting Standalone Prompts**

* [ ] Click × button
* [ ] Confirmation dialog appears
* [ ] Confirm deletes prompt
* [ ] Cancel keeps prompt

**Moving Prompts to Chips**

* [ ] Click 🌮 button on standalone prompt
* [ ] Prompt showing chip selection dialog
* [ ] Can select chip by number
* [ ] Prompt moves to selected chip
* [ ] Prompt disappears from standalone list
* [ ] Prompt appears in chip
* [ ] Invalid selection shows error

**📤📥 Import/Export Testing**

**Exporting Single Chip**

* [ ] Create chip with 3+ prompts
* [ ] Click 📤 button next to chip
* [ ] .chip file downloads
* [ ] Filename is sanitized (no special chars)
* [ ] Filename is max 80 chars
* [ ] File contains valid JSON
* [ ] File has version field (1.0)
* [ ] File has exported timestamp
* [ ] File has chip object with name, emoji, description, prompts

**Exporting All Chips**

* [ ] Create 2+ chips
* [ ] Click "📤 Export" button (main export)
* [ ] nachogpt-all-chips.chip file downloads
* [ ] File contains array of chips
* [ ] All chips are in export
* [ ] All prompts are in export
* [ ] JSON is valid

**Importing Valid Chip**

* [ ] Click "📥 Import" button
* [ ] File picker opens
* [ ] Select valid .chip file
* [ ] Import success message appears
* [ ] Chip appears in list
* [ ] All prompts are present
* [ ] Emoji and description are correct

**Importing Duplicate Chip Name**

* [ ] Import chip with existing name
* [ ] Dialog offers 3 options:
  + [ ] Option 1: Merge prompts - prompts combine
  + [ ] Option 2: Rename - prompts import with new name
  + [ ] Option 3: Skip - nothing imported
* [ ] Each option works correctly

**Import Validation**

* [ ] Import file >10MB - rejected with error
* [ ] Import file with no version - rejected
* [ ] Import file with wrong version - rejected
* [ ] Import chip with name >100 chars - truncated
* [ ] Import chip with 501 prompts - rejected
* [ ] Import chip with prompt title >200 chars - truncated
* [ ] Import chip with prompt content >10,000 chars - truncated
* [ ] Import when already at 50 chips - rejected
* [ ] Import invalid JSON - shows error
* [ ] Import non-.chip file - handles gracefully
* [ ] Import corrupted file - shows error

**Import Edge Cases**

* [ ] Import chip with missing emoji - defaults to 🌮
* [ ] Import chip with missing description - defaults to empty
* [ ] Import chip with extra fields - ignored safely
* [ ] Import multiple chips at once - all import correctly
* [ ] Import during active prompt usage - no conflicts

**💾 Storage Testing**

**Sync Storage (Default)**

* [ ] Create 10 prompts
* [ ] Close browser
* [ ] Reopen browser
* [ ] All prompts are still present
* [ ] Create prompts until near 100KB
* [ ] Warning shows when quota approached
* [ ] Exceeding quota shows clear error
* [ ] Error message suggests Local Storage

**Local Storage**

* [ ] Switch to Local Storage in Settings
* [ ] Confirmation dialog appears
* [ ] Data migration completes
* [ ] All existing prompts remain
* [ ] Can create unlimited prompts (test 500+)
* [ ] No quota warnings
* [ ] Data persists across restarts
* [ ] Data does NOT sync to other devices

**Storage Migration**

* [ ] Create data in Sync Storage
* [ ] Switch to Local Storage
* [ ] All data migrates successfully
* [ ] Switch back to Sync Storage
* [ ] All data migrates back
* [ ] No data loss during migration
* [ ] Migration handles large datasets (50 chips, 500 prompts)

**Storage Persistence**

* [ ] Create data and close popup
* [ ] Reopen popup - data present
* [ ] Restart browser - data present
* [ ] Update extension - data present
* [ ] Disable/enable extension - data present

**Storage Errors**

* [ ] Simulate quota exceeded - user notified
* [ ] Simulate storage.set failure - error handled
* [ ] Simulate storage.get failure - error handled
* [ ] No data corruption on errors

**🎨 Customization Testing**

**Color Picker**

* [ ] Go to ⚙️ About tab
* [ ] Click Color 1 picker
* [ ] Select new color
* [ ] Background gradient updates immediately
* [ ] Click Color 2 picker
* [ ] Select new color
* [ ] Gradient updates with both colors
* [ ] Colors persist after closing popup
* [ ] Colors apply immediately on reopen

**Color Debouncing**

* [ ] Rapidly change colors multiple times
* [ ] Only final color is saved (debounced)
* [ ] No excessive storage writes
* [ ] No lag or performance issues

**Reset Colors**

* [ ] Change both colors
* [ ] Click "Reset to Default"
* [ ] Colors revert to #082080 and #6090FF
* [ ] Gradient updates immediately

**Color Edge Cases**

* [ ] Select black (#000000) - works
* [ ] Select white (#FFFFFF) - works (text still readable?)
* [ ] Select same color for both - gradient still renders
* [ ] Invalid color values - handled gracefully

**⚙️ Settings & About Testing**

**Storage Mode Indicator**

* [ ] Shows "☁️ Sync Storage (100KB limit)" when in sync
* [ ] Shows "💾 Local Storage (Unlimited)" when in local
* [ ] Color changes based on mode (green for local)

**Storage Mode Switching**

* [ ] Radio buttons reflect current mode
* [ ] Clicking "Apply & Migrate" shows confirmation
* [ ] Confirming migrates data
* [ ] Canceling keeps current mode and resets radio
* [ ] Can switch back and forth without data loss

**Keyboard Shortcuts Info**

* [ ] Displays correct shortcut (Ctrl+Shift+M)
* [ ] Shows Mac variation (Cmd+Shift+M)
* [ ] Link to chrome://extensions/shortcuts mentioned

**How to Use Section**

* [ ] Instructions are clear and accurate
* [ ] Steps match actual behavior
* [ ] Examples are helpful

**Share a Chip Section**

* [ ] Instructions for exporting are clear
* [ ] Instructions for importing are clear
* [ ] Encourages team collaboration

**Social Links**

* [ ] Twitter/X link opens in new tab
* [ ] Link goes to correct account
* [ ] Link uses rel="noopener noreferrer" for security

**⌨️ Keyboard Shortcuts**

**Opening Extension**

* [ ] Ctrl+Shift+M opens popup (Windows/Linux)
* [ ] Cmd+Shift+M opens popup (Mac)
* [ ] Shortcut works on AI chat sites
* [ ] Shortcut works on extension pages
* [ ] Shortcut doesn't work on Chrome system pages (expected)

**Shortcut Conflicts**

* [ ] No conflict with browser shortcuts
* [ ] No conflict with site shortcuts
* [ ] User can customize at chrome://extensions/shortcuts

**🌐 Cross-Browser Testing**

**Chrome**

* [ ] Extension loads correctly
* [ ] All features work
* [ ] No console errors
* [ ] Service worker stable
* [ ] Storage sync works

**Firefox**

* [ ] Extension loads correctly (browser API vs chrome API)
* [ ] All features work
* [ ] No console errors
* [ ] Background script stable
* [ ] Storage sync works

**Edge**

* [ ] Extension loads correctly
* [ ] All features work
* [ ] No console errors
* [ ] Chromium base compatibility

**Brave**

* [ ] Extension loads correctly
* [ ] All features work
* [ ] Shield settings don't interfere

**📱 Responsive Design Testing**

**Popup Dimensions**

* [ ] Popup is 400px wide (as specified)
* [ ] Minimum height is respected
* [ ] Scrolling works when content exceeds height
* [ ] No horizontal scrolling needed

**Modal Responsiveness**

* [ ] Modals center correctly
* [ ] Modals don't exceed popup bounds
* [ ] Long text wraps properly
* [ ] Buttons remain accessible

**Content Overflow**

* [ ] Long chip names truncate gracefully
* [ ] Long prompt titles wrap or truncate
* [ ] Scrollbars appear when needed
* [ ] Scrollbar styling is consistent

**🔒 Security Testing**

**Input Validation**

* [ ] XSS attempt in prompt title - escaped correctly
* [ ] XSS attempt in prompt content - escaped correctly
* [ ] Script tags in prompts - inserted as text only
* [ ] HTML in prompts - inserted as plain text
* [ ] SQL injection patterns - handled as text
* [ ] Very long strings - truncated appropriately

**Import Security**

* [ ] Malicious .chip file - validation catches
* [ ] Oversized import (>10MB) - rejected
* [ ] Invalid JSON - error shown
* [ ] Unexpected fields - ignored safely
* [ ] Type confusion attacks - caught by validation
* [ ] Prototype pollution attempts - protected

**Content Script Security**

* [ ] No alerts/confirms in content pages
* [ ] No access to page JavaScript
* [ ] No interference with page functionality
* [ ] Only inserts text on user action
* [ ] No keyboard event spoofing (no synthetic keydown/keyup)

**Storage Security**

* [ ] Storage isolated from other extensions
* [ ] Storage isolated from websites
* [ ] No data leakage to console (except intentional logs)
* [ ] No sensitive data in error messages

**CSP Compliance**

* [ ] No inline script execution
* [ ] No eval() or Function() usage
* [ ] No remote script loading
* [ ] No unsafe-inline allowed (except for styles)

**🐛 Error Handling Testing**

**Network Errors**

* [ ] Offline mode - extension still works (no network needed)
* [ ] Service worker restart - extension recovers

**Storage Errors**

* [ ] Quota exceeded - user notified clearly
* [ ] Storage unavailable - graceful error
* [ ] Corrupted data - handles without crashing
* [ ] Storage.get failure - shows error

**Import Errors**

* [ ] File read error - user notified
* [ ] Parse error - user notified
* [ ] Validation error - specific message shown
* [ ] Partial import failure - rolls back safely

**UI Errors**

* [ ] Click spam on buttons - no crashes
* [ ] Rapid modal open/close - no issues
* [ ] Concurrent operations - no race conditions
* [ ] Memory leaks - observer cleaned up

**Content Script Errors**

* [ ] Input field not found - logged, doesn't crash
* [ ] Input field removed during insertion - handled
* [ ] Extension context invalidated - handles gracefully
* [ ] Site blocks extension - fails silently

**♿ Accessibility Testing**

**Keyboard Navigation**

* [ ] Tab through all popup buttons
* [ ] Enter/Space activates buttons
* [ ] Tab order is logical
* [ ] Focus visible on all interactive elements
* [ ] Escape closes modals
* [ ] No keyboard traps

**Screen Reader Testing**

* [ ] Button labels are descriptive
* [ ] Modal titles announced
* [ ] Form fields have labels
* [ ] Error messages announced
* [ ] Status changes announced

**Visual Accessibility**

* [ ] Color contrast meets WCAG AA (4.5:1 for text)
* [ ] Focus indicators visible
* [ ] Text is readable at default size
* [ ] Icons have text alternatives (title attributes)
* [ ] No information conveyed by color alone

**Reduced Motion**

* [ ] prefers-reduced-motion respected
* [ ] Animations can be disabled
* [ ] Core functionality works without animations

**🚀 Performance Testing**

**Extension Load Time**

* [ ] Extension loads in <200ms
* [ ] Service worker starts in <100ms
* [ ] Popup opens in <150ms
* [ ] No lag on initial load

**Popup Performance**

* [ ] Popup renders in <100ms
* [ ] Switching tabs is instant
* [ ] Scrolling is smooth (60fps)
* [ ] No jank when rendering 50 chips
* [ ] No jank when rendering 500 prompts

**Content Script Performance**

* [ ] Input detection in <50ms
* [ ] Prompt insertion in <50ms
* [ ] No impact on page load time
* [ ] No memory leaks over time (test for 1 hour)
* [ ] MutationObserver doesn't cause lag

**Storage Performance**

* [ ] Save operation in <100ms
* [ ] Load operation in <50ms
* [ ] No lag with large datasets
* [ ] Migration completes in <1000ms

**Memory Usage**

* [ ] Extension uses <50MB RAM
* [ ] No memory growth over time
* [ ] MutationObserver cleaned up properly
* [ ] Event listeners cleaned up on unload

**🔄 State Management Testing**

**Popup State**

* [ ] Opening popup shows latest data
* [ ] Multiple popups don't cause conflicts
* [ ] State persists during tab switches
* [ ] Closing/reopening retains tab selection

**Content Script State**

* [ ] Cached input field remains valid
* [ ] Cache invalidates when input removed
* [ ] Multiple tabs don't interfere
* [ ] Page navigation cleans up properly

**Background State**

* [ ] Service worker can restart without issues
* [ ] Default data initialized only once
* [ ] No state leakage between sessions

**🌍 Internationalization (Future)**

**Character Sets**

* [ ] Unicode characters in prompts work
* [ ] Emoji in prompts work
* [ ] RTL text in prompts work
* [ ] Asian characters (CJK) work
* [ ] Special characters (©, ™, etc.) work

**File Encoding**

* [ ] UTF-8 import/export works
* [ ] No BOM issues
* [ ] Line endings preserved

**📊 Edge Cases & Stress Testing**

**Extreme Data**

* [ ] 50 chips with 500 prompts each (25,000 prompts)
* [ ] Prompt with 10,000 chars
* [ ] Chip name with 100 chars
* [ ] 100 consecutive imports
* [ ] Import all, delete all, import again

**Rapid Actions**

* [ ] Click 100 Quick Pick buttons rapidly
* [ ] Create/delete 50 chips rapidly
* [ ] Switch storage modes repeatedly
* [ ] Open/close modals rapidly
* [ ] Spam keyboard shortcuts

**Concurrent Operations**

* [ ] Import while using Quick Pick
* [ ] Edit while creating new prompt
* [ ] Delete while saving
* [ ] Switch tabs while modal open
* [ ] Multiple AI site tabs open

**Browser State**

* [ ] Extension works after browser crash recovery
* [ ] Extension works in Incognito mode (if allowed)
* [ ] Extension works with other extensions
* [ ] Extension works with low memory
* [ ] Extension works with slow CPU

**✅ Final Checks**

**Pre-Submission**

* [ ] No console errors anywhere
* [ ] All features tested on all browsers
* [ ] All AI sites tested
* [ ] Documentation accurate
* [ ] Icons all present (16, 32, 48, 128)
* [ ] Version number correct in manifest
* [ ] README accurate
* [ ] Privacy Policy included
* [ ] SECURITY.md accurate

**Code Quality**

* [ ] No TODO comments left in code
* [ ] No debug console.logs (except intentional 🌮 logs)
* [ ] No commented-out code
* [ ] Consistent code style
* [ ] All files have proper headers

**User Experience**

* [ ] Extension is intuitive to use
* [ ] Error messages are helpful
* [ ] Success messages appear when appropriate
* [ ] No confusing UI states
* [ ] Loading states shown where needed

**📝 Test Results**

**Summary**

**Total Tests:** \_\_\_\_\_  
**Passed:** \_\_\_\_\_  
**Failed:** \_\_\_\_\_  
**Skipped:** \_\_\_\_\_

**Critical Issues Found**

**Minor Issues Found**

**Notes**

**🎯 Sign-Off**

**Tested By:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Ready for Release:** ☐ Yes ☐ No

**Reviewer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Approved:** ☐ Yes ☐ No

**Testing Complete!** 🌮✅

*Save this checklist for each release and maintain a testing log.*