Master Test Plan: Bible Verse Vista Chrome Extension

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1. INTRODUCTION

1.1. Project Overview

This document outlines the testing strategy and approach for the development of a Google Chrome extension that creates highly customizable new tabs to display Bible verses. While a number of extensions exist that display verses on new tabs, many are extremely bland and static, lacking any customization options. This extension will create a more effective, convenient, and personalized way to deliver the Word to any user.

1.2. Goals/Objectives

- Validate the functionality and customization options of the Bible verses and the New Tab for the extension
- Ensure extension compatibility within the Chrome browser framework
- Ensure that the extension and its customization is satisfying and easy-to-use, receiving feedback from a variety of users
- Measure and minimize load for best performance stability even with a large number of new tabs

1.3. Constraints

- There is a limited time to work before milestones and due dates, including the final submission.
- This is a one-man project I am the only developer and test manager.
- I have multiple ongoing courses with weekly projects of their own, requiring split attention with this project.
- Due to critical issues regarding my usual workspace, I am working within a limited environment on another laptop. This will negatively affect the development and testing time. This is also subject to change, for better and for worse.

2. REFERENCES

2.1. Project Proposal

• <u>GitHub – Project Proposal</u>

2.2. Project Requirements

• GitHub – Project Requirements

3. TESTING STRATEGY

3.1. Test Items

- Bible Verse Vista v1.0.0.0
- Google Chrome v122.0.6261.95 (latest version)
- User questionnaire (UAT)

3.2. Test Features

- Requirements Document
 - (The number next to each feature relates to the corresponding ID Number in the Requirements Document.)
 - (Features not necessary and/or out-of-scope features that I would ideally like to pursue, if possible, have "*"s and are colored red) (25)

Settings

- o Basic menu stores all settings featured below
 - (*at least for development/testing, may not be in final release depending on the point below*)
- O User-intuitive ways to change settings (17, 20)
- O Default settings for all not a blank slate, but a serviceable basis (14)
- *Ability to reset to default settings*
 - (*Total reset and of specific settings*)
- o Preset options (14)
 - (Basic options)
 - (*Planned wholistic "book-esque" preset*)
- User custom choice for options (most)
- *Save and store specific number of user presets*
- o *Undo last change*
 - * (*single change OR more stored???*)
- Theme Selection
 - o Basic light and dark modes (9, 18)
 - Default to light mode
 - (*Extra light/dark variations*)
 - Optional color schemes
 - (tbd any specific schemes or quantity of schemes)
 - Custom color schemes
 - (tbd any specific schemes or quantity of schemes)
- Background image (3)
 - o Default image(s) (15)
 - User custom uploads (3)
 - (*include audio/video like gifs and mp4s*?*)
 - *Additional options*

- *Opacity
- Brightness
- Contrast
- Etc.
- (Audio or no audio if mp4)*
- Bible verse window (1)
 - o *Window background*
 - Default none
 - (*included images*)
 - User custom uploads
 - (*include audio/video like gifs and mp4s*?*)
 - *Window border*
 - (*thickness
 - opacity
 - color
 - shadow*)
 - Window opacity
 - Window color
 - (Basic options and color wheel)
 - Window size and dimensions
 - Window positioning (4)
 - Default is center-screen
 - Presets for various quadrants (4)
 - User custom choice, most likely via drag-and-drop (4)
 - (*Cannot overlap with search bar intuitive, but not in scope*)
 - Text display options
 - Size
 - Font
 - (Default fonts tbd)
 - (Allow user custom uploads)
 - Color
 - (Basic options and color wheel)
 - Alignment
 - (Presets for quadrants, including center as default)
 - (*User option to move text within window via drag-and-drop*)
- Bible Gateway connection (22)
 - Verse via random selection (7)
 - Verse via user choice (8)
 - Verse of the Day (default) (6)
 - o Bible version options (5)
 - Bible language options (19)
- Search bar implementation (2)

- o Sync with default browser (2)
- o (*Optional page feature can choose to remove*)
- Additional Bible Gateway features
 - o Sign up/login to Bible Gateway account to unlock additional feature(s)
 - (*Access favorite verses*)
 - (*Display highlights*)
 - (*Have a notes widget on the side*)
 - Post Bible verses on social media (10)
- *Additional widgets*
 - o (*customizable clock, weather, news feed, etc.*)
- Tutorials (12)
 - o Guide first-time users and users seeking help through the settings (12)
 - (Ensure that the tone is representative of Christ)
 - Ensure clear instructions for those less experienced with technology (12)
 - (*Allow for an easy skip option*)
 - (Make sure that users are not pressured by all the options make it clear that there are easy presets and wider choice beyond that is up to them)
- Errors
 - o Avoid errors, obviously (16, 22)
 - O Display errors to users informative, but not too informative
 - o (*Go to last stable state if error encountered*)

3.3. Test Approach

- My overall approach to testing will be primarily manual testing. The presets, user settings, and the Bible Gateway sync will be easy to test. The many other customization features will be testing extremes, many of which will often be implemented on purpose and allowed for the sake of user customization.
 (Regardless of aesthetic appeal or "normal" sensibility user choice is the priority.)
 - As the sole developer, all the extensive testing performed by myself will be white box testing.
 - As for anyone else tested, they will perform black box testing. This would approximate how users would receive it from the Chrome Web Store, testing whether the tutorial and all the concepts it introduces are effectively communicated and understood soon after.
 - (Further gray testing may be performed with these testers, but that is tbd.)
- (As of now, there is no intention to perform automated testing, but that may be subject to change.)

• The types of tests that will be performed are unit tests, integration tests, system tests, and user acceptance tests (UATs).

3.3.1. System Test

- This testing ensures that Bible Gateway is synced properly and that each customization setting within a new tab is properly implemented – default, other presets, and user-chosen – in an individual sense and all together.
- It also verifies if the settings are maintained across many new tabs and tests whether settings save or not upon webpage refresh, extension on/off, browser on/off, post-shutdown, etc.
- o Is it displaying *each* and *all* of the features as expected?
 - Yes or no? -> Pass or fail]
 - (refer to Test Plan Section 3.2 above)
 - (refer to <u>Project Requirements</u>, IDs 1-24)

3.3.2. User Acceptance Test (UAT)

- This testing verifies whether the primary purpose of the extension has been met or not user satisfaction.
- Testing would be with a variety of users with different systems and different technical experience; therefore, it will be simultaneous testing with performance/load, compatibility, and usability as well.
- Testers would be given a test script, telling them the premise of having downloaded a Google Chrome extension that says it has Bible verses appear on new tabs, but that it's also very customizable.
 - (In part, they would be introduced with the premise that would theoretically exist on the Web Store description.)
- I would request that they comment on their thoughts and experiences throughout the test, which I would record for further insight as I watched what they did and how.
- If they are having trouble, note that, and give them slight pushes towards important features.

 Testers would be asked for their thoughts about various elements of the extension after given ample time.

o This would outline all the basic test features intended for this extension.

• Includes in and out-of-menu settings (17, 20), the menus themselves, the appeal of various preset options (14, 15), the light and dark modes (9, 18), the background image (3), the Bible verse

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window and settings regarding it (1, 4, 22, 7, 8, 6, 5, 19, 10), and so on.

- (Additional test features would also be added accordingly.)
- It would also assess generalities regarding performance, usability, and overall aesthetics.
- The questionnaire would request a number on a satisfaction scale from 1 to 5, with 5 as most pleasing, for each of these.
 - (The goal is to have a 4 on average.)
 - There would also be a blank on the side to put ones specific qualitative reasoning.
- o Their final overall experience will be graded on the same scale.
- There will be a section at the end for specific recommendations and changes to take into consideration.

User Testing Script:

Welcome and thank you for participating in the user testing for my Bible Verse Vista Chrome Extension! This session aims to gather insights on the accessibility, usability, and satisfaction with the extension. Your feedback is invaluable to me in ensuring a great user experience and fulfilling the ultimate purpose of this project.

To clarify the purpose of this extension, it allows for Bible verses to display on the New Tab in the Google Chrome browser, and it focuses on a variety on customization features.

Because this is program is focused on user choice, I would like for you to test different features and customize something you might like and use for yourself if you had the extension.

As you go through the program, I would like for you to think out loud and voice your thoughts and feelings about the program. I will also be asking you questions throughout. I urge you to be honest, because this is a test of the program and not of you.

Now, let's begin!

. .

[questions regarding the test cases, likely towards unfound/untouched features

[ones they would like to find first, then ones they didn't say they wanted when speaking aloud]

[dynamic and dependent on the individual experience of each tester]

. . .

Alright! You did great!

Now, if you would, could you take this questionnaire? If you have any particular points of note or recommendations for change, please just let me know!

[tester takes questionnaire based on test cases and grading scales previously mentioned]

4. TEST DELIVERABLES

4.1. Test Cases

Case	Feature	Action	Expected Result(s)	Actual Results(s)	Pass/Fail (Yes/No)
1	Open settings menu	User clicks the menu button	Opens the settings menu	Settings menu (sidebar) opens	Yes
2	Default light/dark mode (9, 18)	Light mode on first use, click theme selection to change	Defaults to light mode; changes according to user choice	Light mode appears on first use, theme selection appears with light/dark modes and user mode – all work accordingly	Yes
3	User custom color schemes	User clicks save button to save their settings, click load button to use those settings	Appearance changes according to user-chosen color scheme	Appearance saved, user settings stored, appearance loads back successfully	Yes
4	Default background image (3, 15)	On first use (automatic)	Background image initialized as one of the default presets	Background image is initialized on first use as default	Yes
5	Bible verse window	On first use (automatic)	Bible verse displayed in its Bible verse window	Bible verse displayed in its Bible verse window	Yes
6	Bible verse window opacity	User clicks or pulls verse window opacity slider	Bible verse window opacity changes according to setting scale	Bible verse window opacity changes according to setting scale	Yes
7	Bible verse window coloration	User clicks verse window color selector	Bible verse window coloration changes according to chosen color	Bible verse window coloration changes according to chosen color	Yes
8	Bible verse window sizing (width)	User clicks or pulls verse window width slider	Bible verse window changes according to chosen size (width)	Bible verse window changes according to chosen size (width)	Yes
9	Bible verse window position (presets) (4)	User clicks verse window position selector	Bible verse window changes to preset positions accordingly	Bible verse window changes to preset positions accordingly	Yes

				(along the center of the page)	
10	Text size options	User clicks or pulls verse text size slider	Verse text size changes according to chosen size	Verse text size changes according to chosen size scale	Yes
11	Text font options (preset)	User clicks verse font selector	Verse text font changes according to chosen preset	Verse font changes according to chosen preset	Yes
12	Text coloration	User clicks verse text color selector	Verse text color changes according to chosen color	Verse text color changes according to chosen color	Yes
13	Bible Gateway sync (22)	On every use (automatic)	Bible Gateway verse appears the same as it does on the official website	Bible Gateway verse appears the same as it does on the official website (*except in cases where the verse doesn't exist for the version/language)	Yes
14	Daily Bible verses (default, 6)	On every use (if Automatic for Verse of the Day is selected) (automatic)	Bible Gateway's daily verse appears the same as it does on the official website	Bible Gateway daily verse appears the same as it does on the official website (*except in cases where the verse doesn't exist for the version/language)	Yes
15	User selected Bible verses (8)	User selects User Choice for Verse of the Day and types a valid Bible book, chapter, and verse(s)	Bible Gateway's user selected verse appears (assuming validity) as it does on the official website	Bible Gateway's user selected verse appears (being valid) as it does on the official website	Yes

4.2. Advised Changes

- [LINK]
 - \circ (TBA UAT feedback and recommendations for change, issues or improvements)

4.3. Test Reports

• [LINK]

○ (TBA – overview, test stats, chart of stats/results, changes made and intended / what I'm gonna do about it)

5. TEST ENVIRONMENT

- Developer Device
 - o Hardware: Dell Latitude 3520, Windows 10 Pro
 - o Software: Google Chrome v122.0.6261.95 (latest)
 - o Network: multiple stable networks, vary often

6. TESTING SCHEDULE

- Dry Testing, Week 6
 - o (single user, revise test procedure)
- Full Testing, Week 6-7
- Test Analysis and Revisions, Week 7-8

7. ASSUMPTIONS AND DEPENDENCIES

7.1. Assumptions

- The developer was able to implement all intended features.
- The testing environments accurately represent the variety of devices and configurations by users.
- Users have a basic knowledge of operating a browser and browser extensions.
- Users have v122.0.6261.95132 or higher installation on Google Chrome for testing.
- Users have a stable and reliable Internet connection during test phase.

7.2. Dependencies

- Availability of the extension in the testing environment OS versions, Google Chrome, Google Chrome versions, etc.
- The sole developer using a capable device with all necessary features for development and testing.
- The developer fixes any identified issues and changes features according to user feedback during test phase.

8. APPROVALS

Name: Dr. Sean Hayes
Role: Project Supervisor
Date: 9/30/2023
Signature: