

## EV Code Champion\_061(Vision Script)

Project Logo	Vision Script
Project Name	Vision Script Open Source Code Editor
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Testing date	Oct 4 ,2024
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Submission date	: Oct 5, 2024

**Project URL** : <https://66d586f1b075bddbbe64248b--illustrious-beijinho-778bd3.netlify.app/>

# Test plan : Vision Script

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## Overview :

**Project Name :** EV Code Champion, Vision Script website

**Objective :** Validate the functionality and performance of the EV Code Champion software testing approach. Ensure the proper functionality, usability, performance , and security of the EV Code Champion project hosted with the Vision Script website.

## 1. Introduction

**Scope:** This test plan focuses on validating the functionality of the EV Code Champion project within the Vision Script environment, identifying and resolving defects, and ensuring all components work as expected.

**Testing Approach:** Manual and automated testing methods will be used to verify different aspects of the system.

## 2. Test Objectives

Verify the EV Code Champion project meets functional and non-functional requirements.

Ensure seamless integration with the Vision Script website.

Validate data processing and interactions for the EV code champion logic.

### 3. Test Scope

In-Scope:

**Functional Testing:** Ensuring all core features of the EV Code Champion work, including code submission, validation, feedback, and leaderboards.

**Performance Testing:** Test how the project behaves under load, with multiple users or complex input.

**Security Testing:** Validate access control, data privacy, and protection against threats like SQL injections or XSS attacks.

**Usability Testing:** Ensure users have a seamless experience in terms of design, flow, and intuitiveness.

Out-of-Scope:

Testing of unrelated modules of the Vision Script platform.

### 4. Assumptions

The EV Code Champion project is already deployed or accessible on the Vision Script website.

Access to necessary test accounts or roles for different testing scenarios.

### 5. Test Items

**User Interface:** Check layout, navigation, buttons, forms, and user input validation.

**EV Code Logic:** Ensure that the logic for validating EV codes is working correctly.

**Leaderboards:** Ensure rankings update correctly based on user submissions.

**Data Validation:** Verify that user data (code submissions, profiles, etc.) is stored and processed correctly.

## 6. Test Strategy

### Types of Testing:

**Unit Testing:** Testing the smallest units of the project (functions, methods).

**Integration Testing:** Ensure the EV Code Champion components integrate well with the Vision Script platform.

**Functional Testing:** Ensure all features (submissions, feedback, leaderboards, etc.) work as intended.

**Performance Testing:** Load testing to assess performance under heavy traffic.

**Security Testing:** Ensure security of the data and access levels.

**User Acceptance Testing (UAT):** Involve end users to validate usability and real-world scenarios.

## 7. Test Environment

### Test Environment:

**Browser:** Chrome, Firefox, Safari, Edge (latest versions)

**Devices:** Desktop, mobile, and tablet

Operating System: Windows, macOS, iOS, Android

**Test Data:** Sample EV codes, user profiles, and inputs simulating various user behaviors.

## 8. Test Schedule

**Test Case Design:** Begin immediately, creating test cases for functional, performance, and security scenarios.

**Test Execution:** Upon completion of test case design, execute them over 2 weeks.

**Bug Reporting & Tracking:** Continuous process throughout the testing cycle, with defects being reported as soon as discovered

## 9. Test Cases

Some examples of test cases might include:

### Functional Test Cases:

Verify user login and registration functionality.

Ensure valid EV code submissions return correct feedback.

Ensure invalid code submissions are properly handled.

### Usability Test Cases:

Check that all buttons, links, and forms are responsive and accessible.

Verify that the leaderboard updates automatically after code submissions.

### Performance Test Cases:

Simulate 1000 users submitting EV codes at the same time.

Measure response time of code validation.

### Security Test Cases:

Check if an unauthenticated user can access restricted pages or features.

Test the platform against common web vulnerabilities like SQL injection or XSS.

## 10. Deliverables

Test case documentation

Test results summary

Defect reports

Final test report before production release

## 11. Risks & Mitigations

**Risk:** Delays in project completion may impact testing timelines.

**Mitigation:** Regular communication with development teams to track progress.

**Risk:** Limited test resources for performance and security testing.

**Mitigation:** Prioritize critical tests first and outsource testing if needed.

## 12. Exit Criteria

All critical test cases have passed.

No open defects classified as "high priority."

UAT has been completed successfully.

This test plan serves as a roadmap for testing the EV Code Champion project on the Vision Script website.

## Test Scenario : Vision Script

Test Scenario id	Test Scenario Description	Preconditions	Test steps	Expected Result	Test Environment
TS_001	Verify that users can successfully Register on the platform.	Website is accessible	1.Fill out the registration Form with Valid details 2.Submit the registration Form 3. Attempt To register With an existing email	Registration Page load Successfully  All filled accept valid Input. Error message Indicating the Email is Already in use	<b>1.Hardware Requirement</b> . Test machine .Network Infrastructure
TS_002	Verify the users can log into their Accounts	User account must Be register	1.Goto the Login page 2.Enter valid credentials 3.Enter Invalid Credentials	Login page Successfully User is logged in Successfully Error message Indicate invalid credentials	<b>2. Software Requirement</b> . Operating System (windows, mac OS, Linux);
TS-003	Verify that user can select and submit coding Challenges.	User must be log in	1.Navigate The challenges Section  2.Select a Challenges Attempt 3.Write and Submit a Solution	Challenged are displayed  Challenges Details load Correctly. Submission Confirmation Appear with Result.	<b>3. Test data</b> . User Accounts  . Challenges Data . Error Handling



TS-004	Verify that user can view the leaderboard and Their ranking	User has completed at least One challenges.	1.Navigate the leaderboard Section  2.verify the Displayed Ranking are Correct  3. Click on a User's name to view their Profile	Leaderboard loads successfully  Ranking reflect user's Scores accurately.  User's profile And challenges history load Successfully	<b>4. Network Configuration</b> . Local Testing . Staging Environment
TS-005	Verify the users can manage their Profile effectively.	User must be logged in	1.Navigate Profile setting  2. update Profile Information  3.change Password	Profile management Page loads  Changes save Successfully  Password update successfully	<b>5. Test Management tools</b> . Test case Management .Bug Tracking
TS-006	Verify the users can logout Securely.	User must be logged in	1.Click on Logout button.  2.Attempt To access a Restricted page.  3.Verify Session terminated	User logout Successfully  Redirected to The login page.  User can't Access the Dashboard Without Logging.	<b>6. Security and Permissions</b>

## Bug Report : Vision Script

Date : [ Insert Date of report]

Reported by : [ Alok Mishra]

Project : EV Code Champion, Vision Script Website

Bug id	Module	Bug Description	Steps	Expected Output	Actual Output	Priority/Severity	Screenshot Attachment
BG_001	Functional	1. Code editor does not Display Error Message Foe invalid Syntax	Enter valid Code and Run it	An error Message Should be Appear	Error Message Should Not Appear	High/	Screenshot Attached in Valid code
BG_002		2.A link In the Document leads to A 404 Error	Click on “Advanced Error Handling”	The correct Documentatio n page Should be load	Incorrect Documentat ion Page load	High	Screenshot should be Attached Error handling
BG_003	UI	1.The code Editor is Misaligned on mobile Device.	Open the Editor on a iPhone.	The layout Should be Adjust properly	Layout not adjust properly	Medium	Screenshot should be Attached In code editor
BG_004		2.Some Sections Have varying Font size ,affecting Readability.	Review the Different Sections	Consist the Font size Across all Sections	Did not Consist the Font size Across all Sections	Medium	Screenshot Attached In Review Sections

Bug id	Module	Description	Test steps	Expected output	Actual output	Priority	Comments
BG_005	Performan ce	1.Running Some simple code takes Long time	Execute basic code Snippets.	Immediate Response	Take to 10 second above	Medium	Screenshot Attached In code Running time
BG_006		2.Documnet page load Slow time	Navigate to various Documentati on sections	Page load quickly	Very slow Page load	Medium	Screenshot Attached In page load section

## Test Cases : Vision Script

TC_ID	Test case Scenario	Test case Description	Pre – Requisite	Test Steps	Test data	Expected Output
TC_001	Testing string concatenation.	Verify combining two strings using the + operator	Vision Script is installed.	Assign two strings: str1 = "Hello" and str2 = "World". Concatenate: result = str1 + str2.	"Hello", "World".	"Hello World".
TC_002	Testing the array sorting function.	Verify sorting an array in ascending order.	Vision Script array sort method.	Create an array: arr = [5, 3, 9, 1]. Sort the array: arr.sort().	[5, 3, 9, 1].	[1, 3, 5, 9].
TC_003	Verify error handling for division by zero.	Test if Vision Script catches division by zero.	Error handling function.	Write a division function: result = 10 / 0. Capture error message.	10, 0.	Error message.
TC_004	Testing variable assignment with different data types.	Verify that variables can hold various data types and that type conversion works as expected.	Vision Script environment is set up and supports multiple data types.	Assign an integer: intVar = 10. Assign a float: floatVar = 10.5. Assign a boolean: boolVar = true. Assign a string: strVar = "VisionScript".	Int Var = 10 Float Var = 10.5 Bool Var = true strVar = "VisionScript"	10 10.5 true VisionScript

TC_005	Testing basic arithmetic operations.	Verify that addition, subtraction, multiplication, and division work correctly.	Arithmetic operators are implemented in Vision Script.	Perform addition: $\text{sum} = 5 + 3$ . Perform subtraction: $\text{difference} = 10 - 2$ . Perform multiplication: $\text{product} = 4 * 5$ . Perform division: $\text{quotient} = 20 / 4$ .	Addition: 5 + 3 Subtraction: 10 - 2 Multiplication: 4 * 5 Division: 20 / 4	8 8 20 5
TC_006	Testing built-in string functions.	Verify functions like string length, substring extraction, and case conversion.	Vision Script provides string manipulation functions.	Assign a string: <code>text = "VisionScript"</code> . Get the length: <code>length = text.length()</code> .  Extract a substring: <code>subText = text.substring(0, 6)</code> . Convert to uppercase: <code>upperText = text.toUpperCase()</code> .	"VisionScript"	12 Vision VISIONSCRIPT

Test Execution report

Vision Script

Test case id	Test Scenario	Module	Test Description	Tester	Execution Date	Status	Comment
TC_001	Homepage Load	Main page	Verify the Homepage Loads correct	John	2024-10-3	Passed	Loaded in 2 second
TC_002	Feature check	Documentation	Check if all Feature are Documented	Alok	2024-10-3	Passed	All feature Documented
TC_003	Form submission	Contact form	Test form Submission functionality	Maya	2024-10-3	passed	Form did not submit

## RTM of Vision Script website : vision Script

Requirement ID	Requirement Description	Source	Test case id	status
REQ-001	User should be able to sign up.	Business Requirement	TC-001	pass
REQ-002	Users should log in to the website	Business Requirement	TC-002	pass
REQ-003	Users can reset their password.	Business Requirement	TC-003	fail
REQ-004	The website should display user profiles.	User Story	TC-004	In-progress
REQ-005	Users can edit their profile details.	User Story	TC-005	In-progress
REQ-006	Users can upload a vision script.	User Story	TC-006	fail
REQ-007	Users can view and share scripts.	User Story	TC-007	pass

Test Summary report : Vision Script

1. Project information

**Project Name :** EV CODE Champion , Vision script website

**Module :** login , logout, functional , UI, performance , main page , documentation .

**Testing period :** 2024-10-2 to 2024-10-4

**Prepared By :** [ Alok Mishra]

2. Objective

Verify the EV Code Champion project meets functional and non-functional requirements.

Ensure seamless integration with the Vision Script website.

Validate data processing and interactions for the EV code champion logic.

3. Test Execution Summary

Total test Cases	Executed	Passed	Filed	Blocked	In progress
20	17	15	2	1	4

4. Defect summary

Defect ID	Severity	Priority	Module	Status	Remark
BUG001	High	Critical	Login	Open	Login button Not functional On safari browser
BUG001	Medium	High	Form submission	Resolved	Delay form Submission Confirmation screen



## 5. Environment Used for Testing

**Browser :** Chrome, Firefox , safari

**Devices :** Windows, Android, iOS

**Test Tools :** Jira, Postman, Zephyr

## 6. Risk & Mitigations

Risk 1: Form submission failure

Mitigation: Investigate the issue in the form handler code. Ensure error handling is robust and validate fields on both client and server sides.

Risk 2: Slow page load times

Mitigation: Optimize images and scripts, implement lazy loading, and use content delivery networks (CDNs) to improve performance.

Risk 3: Incomplete or outdated documentation

Mitigation: Regularly update documentation and ensure it is in sync with the latest feature updates

## 7. Conclusion

The test execution on the Vision Script website confirmed that core functionalities such as page load times, feature documentation access, and navigation are performing as expected. While most tests passed, a few failures, such as form submission errors, were identified and require further attention. Overall, the website offers a solid user experience with a few areas for improvement. It is recommended to resolve the minor issues to ensure seamless functionality across all features. The site is close to being fully operational pending these fixes.