

Challenge Template

≡ Category	Workshop
≡ Content Type	Challenge
≡ Workshop Day	Competition

Challenge Overview

Challenge Name: TBD

Purpose:

What are participants being asked to build?

Competition Duration: TBD

Team Size: TBD

Difficulty: TBD

Scenario

Write the scenario that will be presented to participants.

What organization, client, user, or problem are they building the application for?

TBD

Challenge Objective

By the end of the competition, teams must design, build, deploy, and present a functional web application that satisfies the requirements below.

The final submission should demonstrate the complete development workflow practiced during the workshops.

Functional Requirements

These describe what the application must actually do.

Required Feature 1

Requirement:

TBD

Expected Behavior:

TBD

Required Feature 2

Requirement:

TBD

Expected Behavior:

TBD

Required Feature 3

Requirement:

TBD

Expected Behavior:

TBD

Required Feature 4

Requirement:

TBD

Expected Behavior:

TBD

Technical Requirements

Teams must demonstrate the following:

- ☐ Application functionality has been planned before implementation
- ☐ Application interactions are represented in an Excalidraw diagram
- ☐ UI/UX design was considered before implementation
- ☐ Project is developed using Visual Studio Code
- ☐ Codex and/or Claude Code are used as AI engineering assistants
- ☐ Authentication is implemented

- ☐ Persistent application data is implemented
 - ☐ Firebase is integrated successfully
 - ☐ Project uses Git for version control
 - ☐ Source code is stored on GitHub
 - ☐ Application is deployed using Vercel
 - ☐ Production domain is configured through Cloudflare
 - ☐ Production application functions correctly
 - ☐ Website is prepared for search engine discovery
 - ☐ Google Search Console is configured where applicable
 - ☐ Bing Webmaster Tools is configured where applicable
 - ☐ Production website is tested using PageSpeed Insights
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Architecture Requirements

Before implementation, teams must create an Excalidraw diagram showing how the major parts of their application interact.

The diagram should communicate the application's functionality rather than detailed infrastructure.

It should include relevant components such as:

User → Interface → Application Logic → Authentication → Database

Required Diagram

Excalidraw Link:

TBD

Diagram Should Show

- User interactions
- Major pages or interfaces
- Authentication flow
- Data flow
- Firebase interaction

- Important application functionality
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User Requirements

User Type 1

Who are they?

TBD

What do they need to accomplish?

TBD

User Type 2

Who are they?

TBD

What do they need to accomplish?

TBD

Required User Flows

Flow 1

TBD → TBD → TBD → TBD

Flow 2

TBD → TBD → TBD → TBD

Flow 3

TBD → TBD → TBD → TBD

Data Requirements

What information must the application store?

Required Data

- TBD
- TBD

- TBD

User-Specific Data

What information should belong to a particular authenticated user?

- TBD
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Authentication Requirements

Teams must implement authentication using Firebase.

Required functionality:

- ☐ User sign-up
- ☐ User sign-in
- ☐ User sign-out
- ☐ Authentication state is handled correctly
- ☐ Relevant data is associated with the correct user

Additional requirements:

TBD

UI/UX Requirements

The application should provide a usable and coherent interface.

Teams should consider:

- Clear navigation
- Consistent visual design
- Readable content
- Responsive layouts
- Appropriate feedback for user actions
- Loading states where appropriate
- Error states where appropriate
- Accessibility

Design Reference

Variant Link:

TBD

Production Requirements

The final application must be publicly accessible.

Deployment

Vercel URL:

TBD

Production Domain

Domain:

TBD

GitHub Repository

Repository:

TBD

Teams must verify that important application functionality works in the production environment.

Search and Performance Requirements

Before submission, teams should verify:

- ☐ Page titles are appropriate
- ☐ Basic metadata is configured
- ☐ Important pages can be discovered
- ☐ robots.txt is reviewed where applicable
- ☐ Sitemap is reviewed where applicable
- ☐ Google Search Console is configured where applicable
- ☐ Bing Webmaster Tools is configured where applicable
- ☐ Production URL has been tested using PageSpeed Insights

- ☐ Major performance or accessibility problems have been reviewed
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AI Usage Requirements

Codex and Claude Code may be used throughout development.

Teams are expected to use AI as an engineering assistant rather than assuming generated code is correct.

Recommended workflow:

Describe → Generate / Modify → Review → Run → Test → Debug → Verify

Teams should be prepared to explain:

- How they used AI
 - A problem AI helped them solve
 - A situation where AI produced an incorrect or incomplete solution
 - How they verified AI-generated code
 - Any hooks or workflow automation they used
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Git and GitHub Requirements

Teams should use Git throughout the competition.

Expected workflow:

Change → Test → Commit → Push

Teams should have multiple meaningful commits that demonstrate development progress.

Repository

TBD

Required Deliverables

Each team must submit:

- ☐ Production website URL
- ☐ GitHub repository
- ☐ Excalidraw architecture / functionality diagram

- ☐ UI/UX design or design reference
 - ☐ Working authentication
 - ☐ Working persistent data
 - ☐ Custom domain
 - ☐ PageSpeed Insights results
 - ☐ Short project presentation / demonstration
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Final Demonstration

Teams will demonstrate their application to the judges.

Suggested Demonstration Flow

1. Explain the problem
 2. Explain the proposed solution
 3. Show the Excalidraw diagram
 4. Demonstrate the application
 5. Demonstrate authentication
 6. Demonstrate persistent data
 7. Show the production website
 8. Explain an important technical decision
 9. Explain how AI was used
 10. Explain a bug or technical problem the team solved
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Surprise Change

Do not include this section in participant-facing challenge materials before the change is announced.

Change

TBD

When It Will Be Announced

TBD

Time Remaining When Announced

TBD

Expected Adaptation

What should teams need to modify?

TBD

Purpose of the Change

What capability are we testing?

- Requirement interpretation
- Problem solving
- Existing code comprehension
- Architecture flexibility
- AI-assisted development
- Debugging
- Time management

Difficulty Check

The change should be:

- Significant enough to require modification
 - Small enough to complete within the remaining time
 - Compatible with the original architecture
 - Fair across teams
 - Clear enough that teams understand the new requirement
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Organizer Acceptance Test

Before approving the challenge, an organizer should build or test enough of it to verify that it is realistic.

Test Checklist

- ☐ Challenge can reasonably be completed within the competition time
 - ☐ Authentication requirements are achievable
 - ☐ Database requirements are achievable
 - ☐ Deployment requirements are achievable
 - ☐ Domain configuration is achievable
 - ☐ Requirements are understandable
 - ☐ Required features can be demonstrated clearly
 - ☐ Surprise change can be implemented within the available time
 - ☐ Challenge does not depend on unreliable external services
 - ☐ Judges can objectively verify the required functionality
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Known Issues and Risks

Risk 1

Risk:

TBD

Mitigation:

TBD

Risk 2

Risk:

TBD

Mitigation:

TBD

Organizer Notes

Internal notes about the challenge.

- TBD

Participant Questions and Clarifications

Use this section during the competition to record official clarifications.

Question

TBD

Official Answer

TBD

Final Challenge Checklist

Before releasing the challenge:

- ☐ Scenario is finalized
- ☐ Functional requirements are finalized
- ☐ Technical requirements are finalized
- ☐ Required deliverables are finalized
- ☐ Participant instructions are clear
- ☐ Organizer has tested the challenge
- ☐ Surprise change is prepared
- ☐ Surprise change has been tested
- ☐ Judging criteria align with challenge requirements
- ☐ Starter files are prepared if needed
- ☐ Submission process is ready