Interactive Whiteboard — Build Readiness Checklist

Pressure-test a shared-canvas build for a virtual classroom before you ship: the sync model, transport, the two-channel split, persistence and export, and accessibility.

A. Data model & sync

- [ ] The board is a document of shapes, synced — never a streamed image of the canvas
- [ ] A sync model is chosen on purpose: central last-writer-wins, OT, or a CRDT (Yjs)
- [ ] CRDT is used only where offline or peer-to-peer editing is a real requirement

B. Transport

- [ ] A WebSocket to a central server carries the authoritative document
- [ ] A WebRTC data channel is added only after measured latency hurts the lesson

C. Document vs awareness channels

- [ ] Shapes travel on a reliable, ordered, persisted document channel
- [ ] Cursors and presence travel on a high-frequency ephemeral channel — never stored

D. Persistence & export

- [ ] Snapshots are saved during class so a refresh or reconnect restores the board
- [ ] The board exports to SVG / PNG / PDF and attaches to the class record

E. Accessibility & instructor controls

- [ ] Rendering favours SVG over canvas; WCAG 2.1 AA: text alternatives, keyboard, contrast
- [ ] The instructor can clear, lock, undo, and grant or revoke per-learner draw rights



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This checklist covers the sync model, transport, channel split, persistence and instructor controls of a shared canvas. Our seven-volume handbook covers the real-time video stack a classroom whiteboard lives in; start with Volume 3 for WebRTC and real-time delivery, then Volume 4 for voice processing and Volume 1 for encoding.

WHAT YOU WILL FIND INSIDE

- WebRTC and real-time delivery (Vol. 3)
- Encoding screen and camera content (Vol. 1)
- Real-time voice: echo cancellation and noise suppression (Vol. 4)

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