

## Problem Statement – *Video Conferencing Web App*

### ◆ Core Problem to Be Solved

In a world increasingly dependent on remote communication, users (students, teams, freelancers) often struggle with:

- ❌ **Complex or bloated video conferencing tools** that require installation or heavy system resources.
- ❌ **Lack of reliability** in real-time communication on low-bandwidth networks.
- ❌ **Limited or expensive access** to premium conferencing features.
- ❌ **Disjointed collaboration tools** like separate platforms for chat, video, and screen sharing.
- ❌ **No easy way to host or join a call without logging in or signing up.**

### 💬 User Perspective (Pain Points)

- “I just want to join a meeting quickly without downloading anything.”
- “Why does video always lag or freeze on my internet?”
- “I wish there was a simpler way to screen share without a plugin.”
- “Setting up meetings should be fast, not a task in itself.”

### ✿ Need for a Solution

There is a growing demand for a **lightweight, browser-based video conferencing solution** that:

- Works smoothly even on **low-spec devices or mobile browsers**
- Requires **no installations or lengthy sign-up processes**
- Offers **real-time chat, screen sharing, and participant control** in one integrated interface
- Uses **modern web technologies** like **Agora SDK, React, Socket.io**, and can be deployed easily

### ✅ Summary

The core problem is the **lack of a simple, real-time, and accessible video communication platform** that offers **essential collaboration features without complexity** — particularly in **education, remote work, and freelance meetings**.