TEST

Goal
- Create a poll
- Share via link (with rich preview)
- Vote anonymously once
- See real-time results
- Auto-summary insight

Scope
1. **Create Poll (Web UI)**
- Fields: question (max 120 chars), options (2–4), expiry (24h).
- Quick-create: if the question contains delimiters, auto-split options.
- Return a share URL.

2. **Shareable Link + Preview**
- Poll page is publicly accessible without login.
- Set proper **Open Graph** tags so WhatsApp previews show question + favicon.
- Generate a QR code for the share URL (button on creator's screen).

3. **Anonymous, One-Vote**
- Anyone can vote without auth.
- Prevent duplicate votes using a layered approach:
    - Signed, per-poll **vote token** (httpOnly cookie or localStorage seed).
    - **Soft** device fingerprint (UA + IP hash) + **server rate-limit**.
    - Server-side idempotency key per vote.
- If user tries to re-vote, show "You've already voted" and highlight their choice.

4. **Real-time Results**
- Results update live for anyone viewing (WebSocket or SSE).
- Bars animate to current percentages; total votes visible.
- Creator-only toggle (query param or secret) to "hide results until voted."

5. **Auto-Insight**
- After ≥20 votes, compute a one-sentence summary:
    - "**{TopOption}** leads with **{pct}%**; strongest among **{time window or simple cohort}**."
- If you can't use an LLM, craft a simple rules engine (top-1, margin >10%, tie note).

6. *Expiry & Data Rules*
- Poll auto-expires after TTL (24h default). Hide voting UI, show final results.
- Late vote attempts return an explicit error.

Suggested Tech (This is flexible)
- **Backend**: Node (Express/Fastify) or Python (FastAPI).
- **DB**: Postgres or SQLite (with migration).
- **Realtime**: WebSocket/SSE.
- **Frontend**: React/Vite (or Svelte/Next).
- **QR**: any QR lib.
- **OG Image**: server route that draws PNG (e.g., Satori/canvas or simple static).