**6th-Sense AI   
Assignment Submission – Full Stack Developer Role**

**Applicant:** Mohammed Abdul Raffay

**Project Title**

**X-Scraper** – A full-stack project that scrapes trending topics from X (formerly Twitter) while rotating IPs for anonymity.

**Hosted URL**

🔗 https://sixth-sense-assignment.vercel.app/

**GitHub Repository**

🔗 https://github.com/raffay69/sixth\_sense\_assignment

*(The repository contains the complete project, README with setup instructions, and codebase.)*

**Challenges Faced**

The biggest challenge was figuring out **how to rotate IPs efficiently**. At first, I tried ProxyMesh, but the free tier was too limited and got exhausted after only a few calls. Eventually, I discovered Tor could be used for IP rotation. I integrated Tor with the Node.js server and passed it as a proxy in Selenium Chrome options, which worked well.

After solving IP rotation, I faced another issue: **Google Sign-In captchas** whenever logging in from a new IP. Since captchas cannot be automated, and X was not allowing me to create a normal account, I had to find a workaround.

The solution was to use **cookies**. I logged in once from my local IP, saved the cookies to MongoDB, and then reused those cookies whenever the IP rotated. This allowed Selenium to skip the login flow and directly access the account. The only trade-off is that cookies expire every 1–2 weeks, so they need to be refreshed periodically.