Internship Project Report
Tracker Blocker - Chrome Extension

Introduction
This project is created as part of my cybersecurity internship and focuses on building a privacy-enhancing browser extension. With online tracking being widespread, the aim was to build a tool that actively blocks known trackers and informs in real-time through a popup interface.

Tool Used
- JavaScript (ES6)
- HTML & CSS
- Chrome Extension APIs (Manifes V3)
- Chrome.storage.local for saving logs
- declarativeNetRequest for blocking

Steps Involved
1. Set up project folder structure for Manifest V3.
2. Created rules.json with popular tracking domains.
3. Wrote background.js to log matched rules and update badge.
4. Built popup.html with a scrollable log view and 'Clear Logs' button.
5. Styled the popup using style.css for a clean user experience.
6. Tested the extension on real sites like CNN, NYT, and YouTube.
7. Refined based on behavior and UI feedback.

Features
- Automatically blocks scripts from known tracking domains.
- Maintain a log of:
  - Blocked tracker URL
  - The site it was found on
  - Timestamp
- Logs shown directly in the extension popup.
- Badge updates with number of trackers blocked.
- 'Clear Logs' button to reset everything.

Folder Structure
- tracker-blocker-extension/
  - background.js
  - manifest.json
  - popup.html
  - popup.js
  - style.css

- data/
    - rules.json
- icons/
    - Icon48.png
- docs/
    - Internship Project - Tracker Blocker - Chrome Extension.pdf
    - README.md

Acknowledgment

While the core logic and UI were built by me, I received small help from ChatGPT by OpenAI - especially when setting up Manifest V3, fixing background script errors, and improving JavaScript syntax.

Conclusion

This extension was a great opportunity to understand privacy mechanisms in browsers, how trackers work, and how Chrome's declarative APIs can be used to build functional and clean tools. The project meets all objectives and works efficiently with no popups, alerts, or interruptions - only silent protection.