

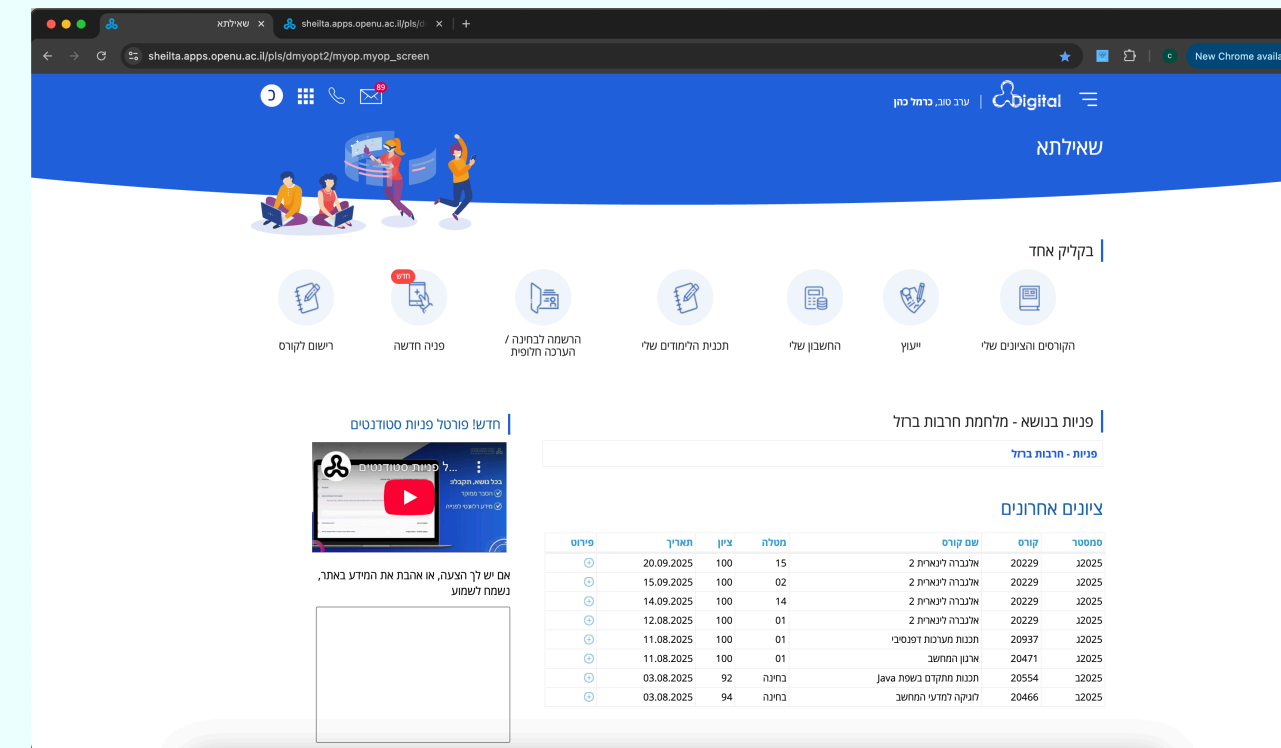
Sheilta KeepAlive Ext.

Enough worrying about refreshing

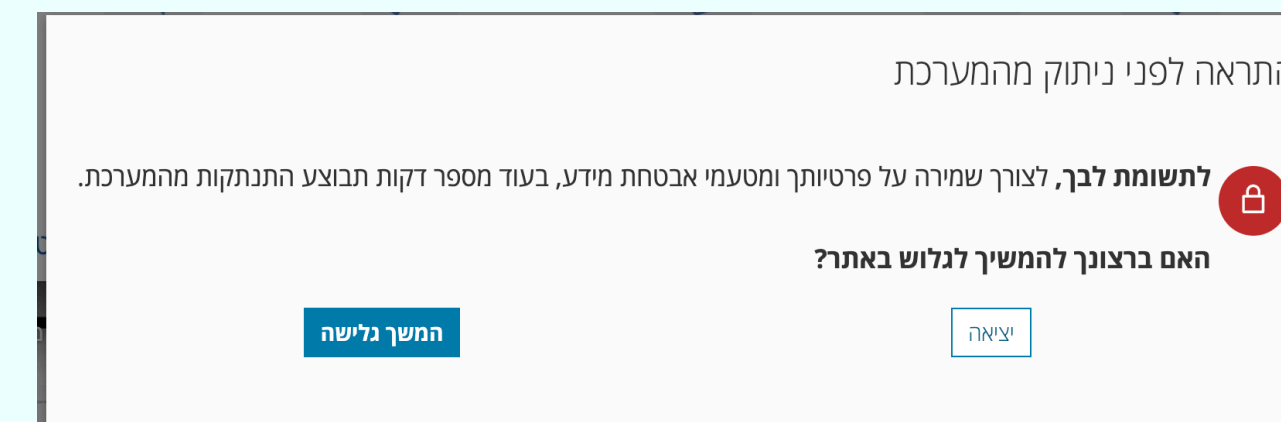
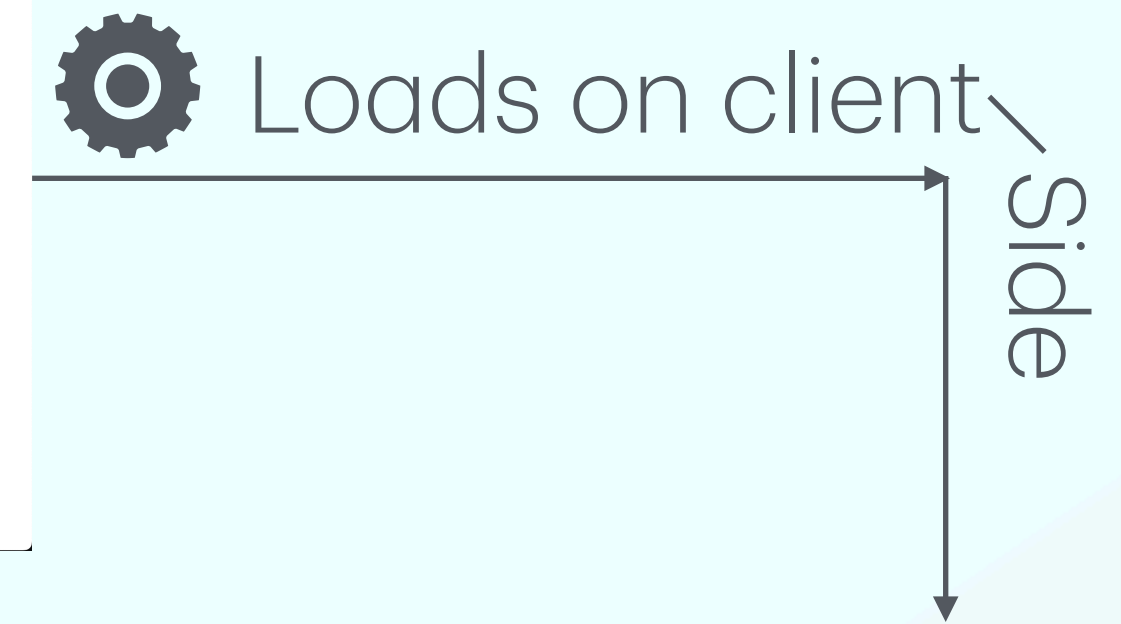
The Problem

30 minutes is not enough...

- Sheila logs out after 30 minutes of inactivity
- Frustrating when watching videos on another domain → Sheila tabs expire
- **Motivation:** automate session keeping without manual refresh



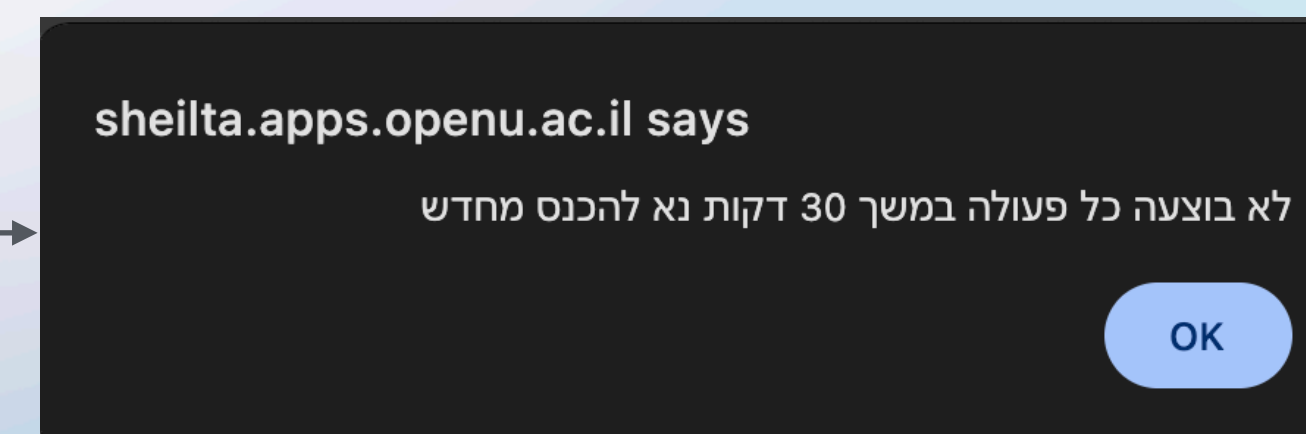
sheilta main page



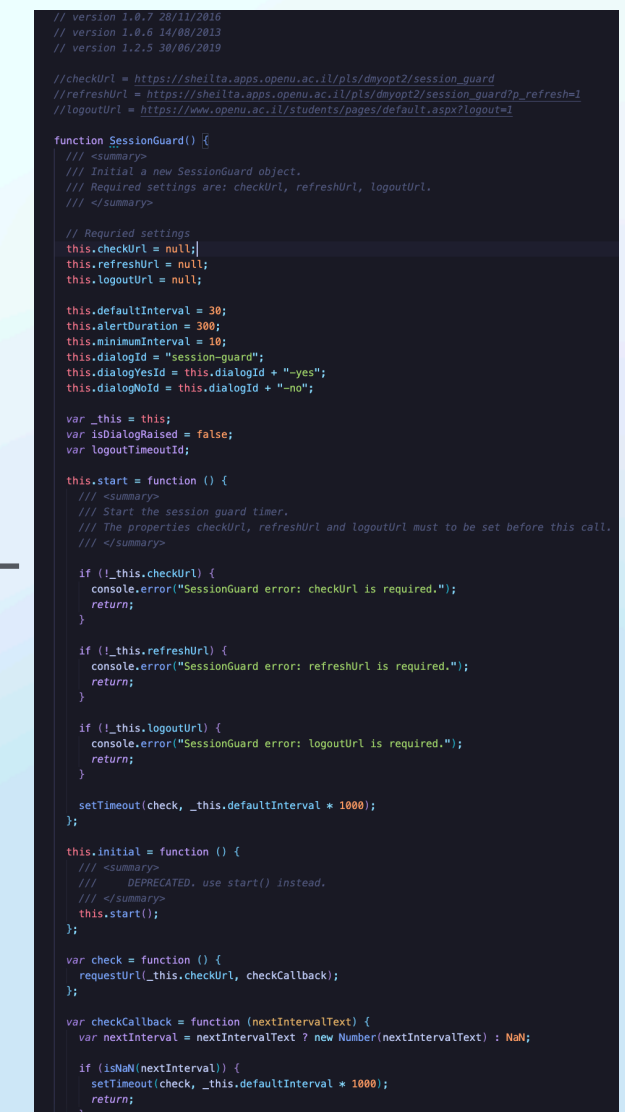
~10 sec warning

Triggers

End



session died



session-guard-1.0.js

Investigation Process

Curiosity kicks in..

- **Explored login/logout flow**
 - **Login** → session-guard-1.0.js loaded
 - **Logout** → different APIs for Sheilta vs course tabs
- **Session-guard-1.0.js revealed**
 - **checkUrl** → returns session TTL (seconds)
 - **refreshUrl** → resets session cookie
 - **logoutUrl** → forces logout

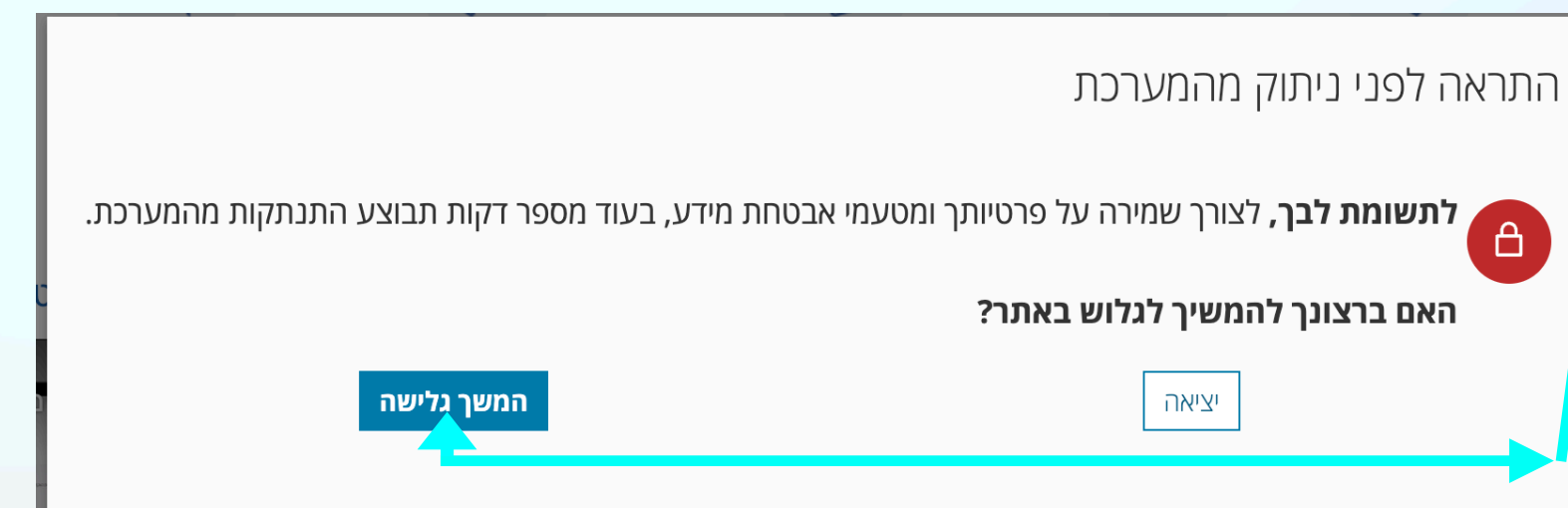
```
<script type="text/javascript" src="/ows-img/_default/scripts/session-guard-1.0.js"></script>
<script type="text/javascript">
    var sao = new SessionGuard();
    sao.checkUrl = "session_guard";
    sao.refreshUrl = "session_guard?p_refresh=1";
    sao.logoutUrl = "https://www.openu.ac.il/students/pages/default.aspx?logout=1";
    sao.initial();
</script>
```

```
var refresh = function () {
    if (logoutTimeoutId) {
        clearTimeout(logoutTimeoutId);
        logoutTimeoutId = false;
    }

    requestUrl(_this.refreshUrl, checkCallback);
};




var logout = function () {
    if (_this.logoutUrl) {
        top.window.location.href = _this.logoutUrl;
    }
};
```

```
function requestUrl(url, callback) {
    if ($) {
        $.ajax(url, {
            method: "POST",
            success: callback,
            error: function (error) {
                callback(null);
            },
            xhrFields: { withCredentials: true },
        });
    } else {
        var xmlhttp = new XMLHttpRequest();
        xmlhttp.withCredentials = true;
        xmlhttp.onreadystatechange = function () {
            if (xmlhttp.readyState == 4) {
                if (xmlhttp.status == 200) {
                    callback(xmlhttp.responseText);
                } else {
                    callback(null);
                }
            }
        };
        xmlhttp.open("POST", url, true);
        xmlhttp.send();
    }
}
```



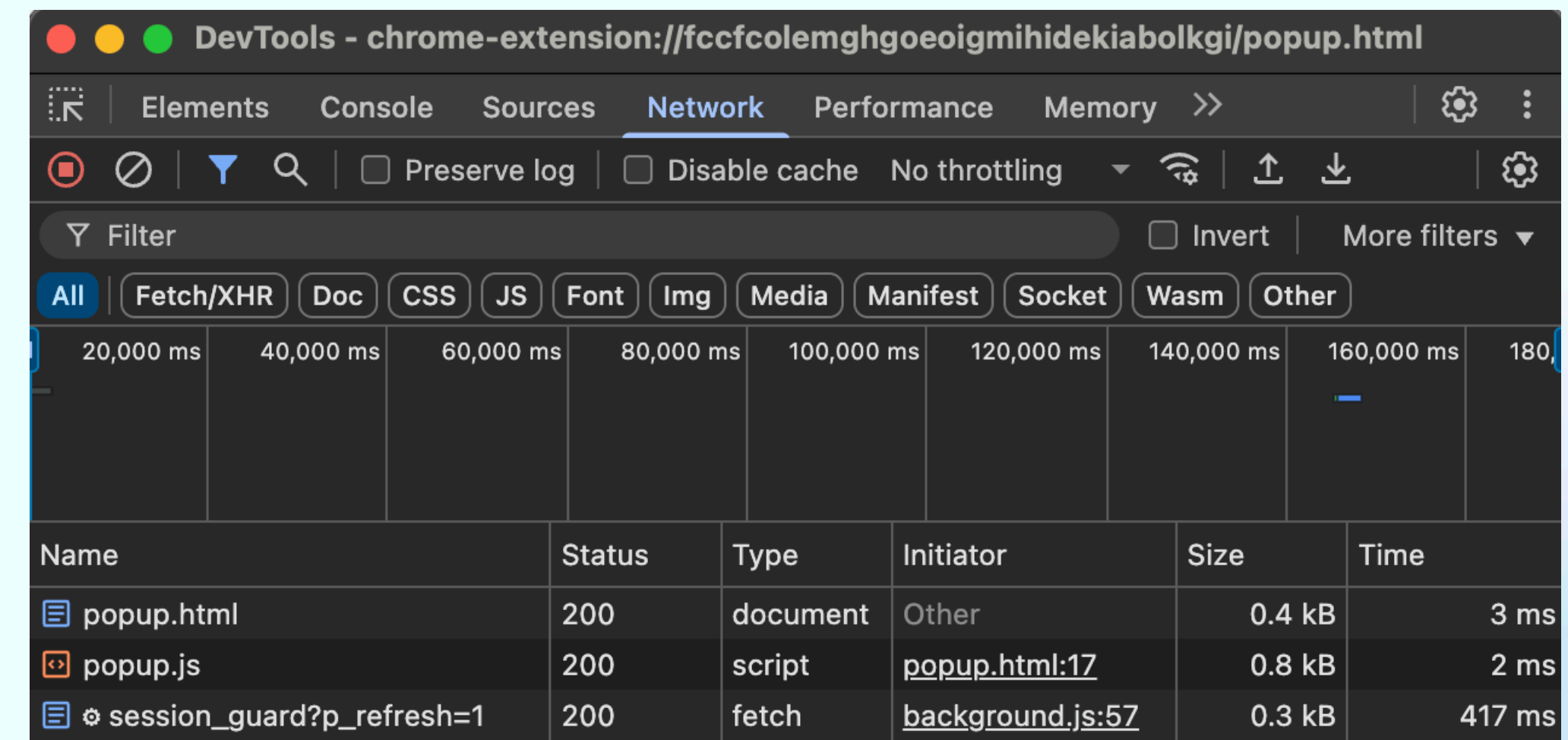
Solution Design

Chrome loves extensions...

- Runs quietly in background
- Periodically calls refreshUrl
- Key features:
 -  Toggleable On/Off
 -  Configurable interval
 -  Smart check → only if Sheila tab open

Sheilta Keepalive

☒ Keepalive Enabled



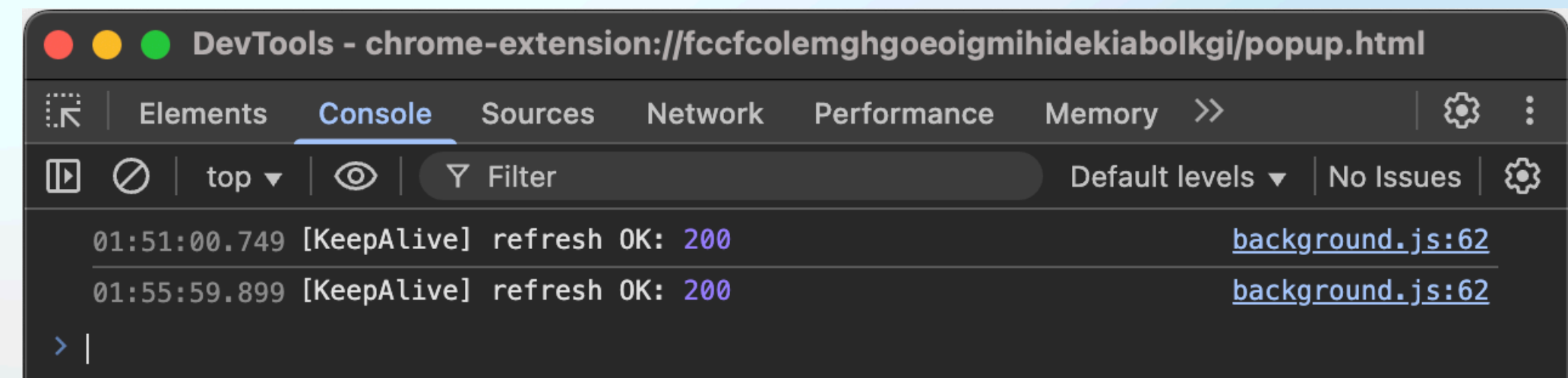
DevTools - chrome-extension://fccfcolemghgoeigmihidekiabolkgi/popup.html

Elements Console Sources **Network** Performance Memory >>

Filter ☐ Preserve log ☐ Disable cache No throttling ☐ Invert More filters ▾


All Fetch/XHR Doc CSS JS Font Img Media Manifest Socket Wasm Other

Name	Status	Type	Initiator	Size	Time
popup.html	200	document	Other	0.4 kB	3 ms
popup.js	200	script	popup.html:17	0.8 kB	2 ms
session_guard?p_refresh=1	200	fetch	background.js:57	0.3 kB	417 ms



DevTools - chrome-extension://fccfcolemghgoeigmihidekiabolkgi/popup.html

Elements **Console** Sources Network Performance Memory >>

top ▾ ☐ Filter Default levels ▾ No Issues 

```
01:51:00.749 [KeepAlive] refresh OK: 200 background.js:62
01:55:59.899 [KeepAlive] refresh OK: 200 background.js:62
> |
```

Code Walkthrough

Enough with the talking...

- **Alarm setup** → triggers every X minutes
- **Tab detection** → verifies Sheilta tab exists
- **Keepalive fetch** → calls refreshUrl with cookies

```
const KEEPALIVE_INTERVAL_MINUTES = 5; // 0.2 for testing
const SHEILTA_REFRESH_URL =
  "https://sheilta.apps.openu.ac.il/pls/dmyopt2/session_guard?p_refresh=1";

let keepaliveEnabled = true;

chrome.storage.local.get(
  { enabled: true },
  (d) => (keepaliveEnabled = d.enabled)
);
```

```
function ensureAlarm() {
  chrome.alarms.clear("sheiltaKeepAlive", () => {
    chrome.alarms.create("sheiltaKeepAlive", {
      periodInMinutes: KEEPALIVE_INTERVAL_MINUTES,
    });
    console.log("[KeepAlive] Alarm @", KEEPALIVE_INTERVAL_MINUTES, "min");
  });
}

chrome.runtime.onInstalled.addListener(ensureAlarm);
chrome.runtime.onStartup.addListener(ensureAlarm);
```

```
function hasSheiltaTab(cb) {
  chrome.tabs.query({}, (tabs) => {
    cb(
      tabs.some((t) =>
        /^https:\/\/sheilta\.apps\.openu\.ac\.il\/i.test(t.url || "")
      )
    );
  });
}
```

```
chrome.alarms.onAlarm.addListener((alarm) => {
  if (alarm.name !== "sheiltaKeepAlive") return;
  if (!keepaliveEnabled) {
    console.log("[KeepAlive] Disabled. Skip.");
    return;
  }

  hasSheiltaTab((has) => {
    if (!has) {
      console.log("[KeepAlive] No Sheilta tab. Skip.");
      return;
    }

    fetch(SHEILTA_REFRESH_URL, {
      method: "GET",
      credentials: "include",
    })
      .then((res) => {
        if (res.ok) console.log("[KeepAlive] refresh OK:", res.status);
        else console.warn("[KeepAlive] refresh non-OK:", res.status);
      })
      .catch((err) => console.error("[KeepAlive] refresh error:", err));
  });
});
```

LET'S DEMO THIS

https://sheilta.apps.openu.ac.il/pls/dmyopt2/myop.myop_screen