

# Bug Report

EcoQuorum(Xpan)

Failed to retrieve 'client\_id' and pass it to the Unity project

- September 23, 2024 -

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## 1. Cause

: Originally, the 'EcoQuorum' project used the 'NamesAndRoles' method from the LTIjs package to retrieve the student's unique ID.

However, the `getMembers()` function in 'NamesAndRoles' fetches information for all course participants, making it unnecessarily heavy for a scenario where only a single 'student\_id' is needed.

As a result, **the project failed to retrieve the student\_id and couldn't launch the Unity build correctly.**

## 2. Action

: We **implemented a simpler method to retrieve the 'student\_id'**, eliminating the need for interaction with the server (dlx-webhost) or Moodle.

Our DevOps team had already set the 'ltik' cookie on the website, which contains the 'student\_id', and 'EcoQuorum' was already using this cookie for authentication.

We decrypted the 'ltik' cookie (JWT to JSON) and extracted the 'user' value, which corresponds to the 'student\_id'.

This 'student\_id' is then passed to the Unity project, allowing it to function as expected.

### Applied Source Codes

```
function parseJwt(token) {
  const base64Url = token.split('.')[1];
  const base64 = base64Url.replace(/-/g, '+').replace(/_/g, '/');
  try {
    const jsonPayload = decodeURIComponent(atob(base64).split('').map(function(c) {
      return '%' + ('00' + c.charCodeAt(0).toString(16)).slice(-2);
    }).join(''));
    return JSON.parse(jsonPayload);
  } catch (error) {
    console.error("Failed to parse JWT:", error);
    return {};
  }
}

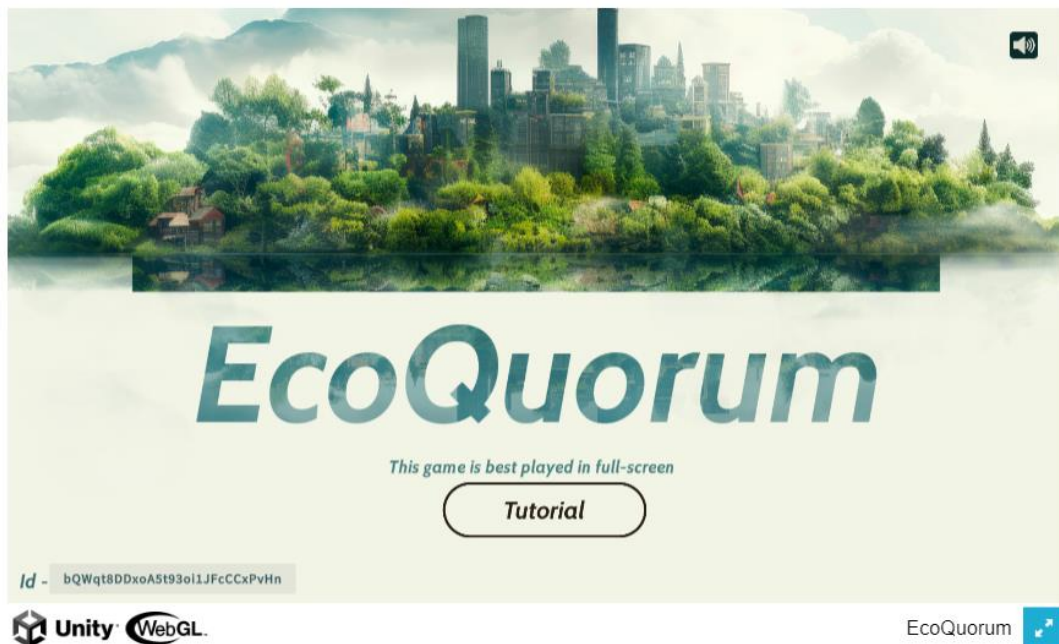
async function RetrieveUserID(UnityInstance) {
  let ltik = "";
  // get 'ltik' cookie
  ltik = this.getCookie("ltik");

  // Decode ltik JWT to JSON object
  const decodedToken = parseJwt(ltik);
  // Extract 'user' field, which contains the user_id
  const student_id = decodedToken.user;

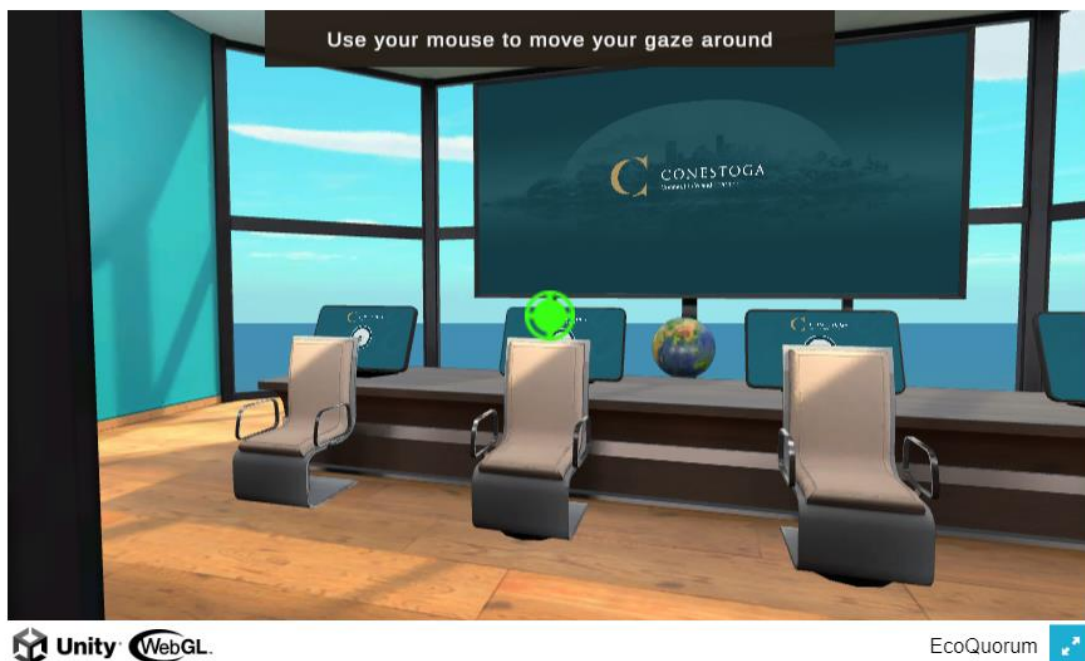
  // Pass student_id to Unity Project
  UnityInstance.SendMessage("AuthManager", "SetUserId", student_id);
}
```

## 3. Outcome

: As expected, **all functions worked normally** and it was confirmed that the student ID was actually transmitted.



[ Tutorial Page ]



[ Playing a Tutorial ]

```
▼ {externalId: "22", signInOnly: false}  
  externalId: "22"  
  signInOnly: false
```

[ Retrieved 'student\_id' ]