Kaltura Technical Assessment by Sultan Khalaily

SECTION 1 – SQL

Part 1

Write a query to find all classes with at least 5 unique students.

```sql
SELECT DISTINCT class
FROM (
    SELECT class, COUNT(DISTINCT student) as student_count
    FROM students
    GROUP BY class
) as class_counted
WHERE student_count >= 5;
```

Part 2

Select any **2 questions** out of the following **4 options**:

Question 1:
Write an SQL query to return the IDs of all entries in status 2 for partner ID 2264441.

sql
Copy code
```sql
SELECT ids
FROM entry
WHERE status = 2 AND partner_id = 2264441;
```

Question 2:
Write an SQL query to return the IDs of all entries created during **February 2018** in status 2 for partner ID 2264441.

```sql
SELECT ids
FROM entry
```

```
WHERE status = 2
  AND partner_id = 2264441
  AND created_at >= '2018-02-01 00:00:00'
  AND created_at < '2018-03-01 00:00:00';
```

SECTION 2 – Shell Question / Bash Script

Write a script to process the `words.txt` file, count unique words, and sort them by frequency:

bash
Copy code
```bash
#!/bin/bash

if [ ! -f "words.txt" ]; then
    echo "Error: file words.txt not found"
    exit 1
fi

if [ ! -r "words.txt" ]; then
    echo "Error: Cannot read words.txt"
    exit 1
fi

cat words.txt | \
    tr -s ' ' '\n' | \
    grep -v "^$" | \
    sort | \
    uniq -c | \
    sort -nr | \
    awk '{print $2" "$1}'
```

SECTION 3 – JavaScript

DOM Manipulation Example

html
Copy code
```html
<!DOCTYPE html>
```

```html
<html>
<head>
    <title>DOM Manipulation</title>
</head>
<body>
    <h1>Welcome to Kaltura by Sultan</h1>
    <p>This is a sample sentence.</p>

    <script>
        // 1. Change H1 color
        document.querySelector('h1').style.color = 'blue';

        // 2. Add new paragraph
        const newParagraph = document.createElement('p');
        newParagraph.textContent = "Sultan Khalaily";
        document.body.appendChild(newParagraph);

        // 3. Style all paragraphs
        document.querySelectorAll('p').forEach(p => {
            p.style.color = 'red';
            p.style.fontFamily = 'Arial, sans-serif';
        });
    </script>
</body>
</html>
```

SECTION 4 – KMC Functionality

1. Locate Partner ID

Steps to find the Partner ID:

- Navigate to **Settings** > **Account Tab** to find the Partner ID.
- I also went to the **Integration Tab** for details about Partner ID and Sub-Partner ID.

Partner Id : 2264441
Sub_Partner_Id: 226444100

2. Update Thumbnail

Video Details:

- **ID**: `1_3v3yrlcb`
- **Name**: *Quality Video From Sultan*

Steps To Resolve:

1. Upload a video.
2. Go to **Thumbnails**.
3. Upload a favorite photo and set it as the thumbnail.

3. Restricting Video to Israel Only and schedual to the day after

Video Details:

- **ID**: `1_96uu0yvk`
- **Restrictions**:
    - Current Date: 11/22/2024 00:23 -> Scheduled to -> Playback Date: 11/23/2024, 00:24
    - Location: **Israel only**

Steps to apply restriction:

1. Create an access control profile with in setting restrictions to Israel.
2. Assign the profile to the video.

SECTION 5 – API and Network Debugging

Task 1: Provide KS and Entry ID

KS =
"djJ8MjI2NDQ0MXweZe75BmMptKtd1bs5SsdyAVGbtkTFVBicIyDmM1I-u0xMiPIzINcOxIuxgb57b6rYCroliW CCpoLzHUGLY6BpHBCo1S5bzbcGIUCJTEDpy8AQGoIG9tYvy8hdyOqYCOY="

Entry ID: 1_3v3yrlcb

Task 2: Use API to Fetch Video Details

API Endpoint:

GET http://www.kaltura.com/api_v3/index.php?service=media&action=get&entryId={yourEntryId}&ks={KS}

Response Example:

```
<name>Quality Video From Sultan</name>
<duration>49</duration>
<width>3840</width>
<status>2</status>
<createdAt>1732227627</createdAt>
<moderationStatus>6</moderationStatus>
<flavorParamsIds>0</flavorParamsIds>
```

Task 3: Update Entry Name API Endpoint:

POST https://www.kaltura.com/api_v3/service/baseentry/action/update

Action: Rename entry to:
"This entry name shows that I'm starting to understand the Kaltura API"

```
let entryId = "";
let baseEntry = new kaltura.objects.BaseEntry();
baseEntry.name = "This entry name shows that I'm starting to understand the Kaltura API";
kaltura.services.baseEntry.update(entryId, baseEntry)
.execute(client)
.then(result => {
   console.log(result);
});
```

Task 4: Video Attached

SECTION 6 – Kaltura API

Question 1 & 2: Missing Entry Troubleshooting

QUESTION 1

(I would like to not that entry 1_lv1lmqhk. was not found in this account and it could deleted by other users; I can also prove that using your api GET Entry)
Assuming it exist , it was not retrieved because of the criteria set in client side
Such as ,
1: status of the entry if not 2 (mean the vide is not yet ready set in the system) the video won't be collected
2: the type of the entry is not clip ; typeequel != 1
3: using pagination ,it creation Time is very old , so it was not collected in the first 30 entries
4: it object type is not KalturaBaseEntryFilter
What to change? Best practice to do :
    1.We can simply m change the filter of status and make not exclusively 2 (not only ready clips)
    2. We can change the filter of type equal to

QUESTION 2

(I would like to not that entry 1_jxfxwaij was not found in this account and it could deleted by other users)

Assuming it exist , it was not retrieved because of the criteria set in client side

Such as ,

1: status of the entry if not 2 (mean the vide is not yet ready set in the system) the video won't be collected

2: the type of the entry is not clip ; typeequel != 1

3: using pagination ,it creation Time is very old , so it was not collected in the first 30 entries

4: it object type is not KalturaBaseEntryFilter

What to change? Best practice to do :

    1.We can simply m change the filter of status and make not exclusively 2 (not only ready clips)

    2. We can change the filter of type equal to

QUESTION 3

```
Function addCategory() {
    const kaltura = require('kaltura-client');
    const config = new kaltura.Configuration();
    config.serviceUrl = 'https://www.kaltura.com';
    const client = new kaltura.Client(config);
    kaltura.services.session.start(  "00c05272a1fe1cb5b2d9112d52f42bd0",
        "tier3.kaltura@gmail.com",
        kaltura.enums.SessionType.ADMIN,
        2264441)
    .completion((success, ks) => {
        if (!success) throw new Error(ks.message);
        client.setKs(ks);
        let category = new kaltura.objects.Category();
        category.adminTags = "kalturaTestSultan";
        category.name = "kalturaTestSultan";
        kaltura.services.category.add(category)
        .execute(client)
        .then(result => {
            console.log(result);
        });
    })
    .execute(client);
}
```

Results:

```
{
    "id": 362446142,
    "depth": 0,
    "partnerId": 2264441,
    "name": "kalturaTestSultan",
    "fullName": "kalturaTestSultan",
    "fullIds": "362446142",
    "entriesCount": 0,
    "createdAt": 1732237049,
```

"updatedAt": 1732237049,
"appearInList": 1,
"privacy": 1,
"inheritanceType": 2,
"userJoinPolicy": 3,
"defaultPermissionLevel": 3,
"directEntriesCount": 0,
"contributionPolicy": 1,
"membersCount": 0,
"pendingMembersCount": 0,
"privacyContext": "",
"privacyContexts": "",
"status": 2,
"partnerSortValue": 0,
"directSubCategoriesCount": 0,
"isAggregationCategory": false,
"aggregationCategories": "",
"adminTags": "kalturaTestSultan",
"objectType": "KalturaCategory"

Add Entitlement

Select the root category integrated with your application and label it below.

Search Categories

○ add_test_python

○ Bla Bla - 19-11

○ bla-bla22

○ Dror

▶ ○ kalturaTest 3

○ kalturaTest - 19-   Selected: kalturaTestSultan

Selected: kalturaTestSultan

Add Privacy Context Label *

Apply   Cancel

}