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CNIT 372
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MILESTONE 3

This project presents a user-friendly analytics dashboard tailored for YouTube content views, streamlining the evaluation of their video library's performance. Gain immediate insight into crucial metrics such as view counts, likes, and comment interactions. Discover emerging trends across different categories to fine-tune your content creation strategy effectively. Pinpoint your most successful videos at a glance and foster community engagement by interacting with viewers' feedback and emotions expressed in comments

Step 1:

Open SQL Developer
Run the following code:

```
DROP TABLE videos CASCADE CONSTRAINTS;
DROP TABLE comments CASCADE CONSTRAINTS;
CREATE TABLE videos (
   VideoID VARCHAR(255),
   Title VARCHAR(255),
   PublishedAt DATE,
   Keyword VARCHAR(255),
   Likes INTEGER,
   Comments VARCHAR(255),
   Views INTEGER
);
CREATE TABLE comments (
   CommentID INTEGER,
   VideoID VARCHAR(255),
   VidComment VARCHAR(1000),
   Likes INTEGER,
   Sentiment INTEGER
);
```

Step 2:
Right Click the created table from step 1 in the left menu
Right-click on *Videos* and select “Import Data…”
Locate the data file on your computer by clicking on the “Browse” button, and
select the *Videos-stats.csv. Once selected ensure that you align all data types in the table with them in line with the file. For the Date you will have to change format to mm/dd/yy.*
Click the “Next >” button to follow the remaining import steps.

Step 3:
Right-click on *comments* and select “Import Data…”
Locate the data file on your computer by clicking on the “Browse” button, and
select the *comments.csv*
Click the “Next >” button to follow the remaining import steps.

Code to Questions:

1. Most viewed video based on a certain search query (keyword)? This question allows users to see the popularity of videos based on a certain search query.

```
SELECT v.VideoID, v.Title, v.Views
FROM Videos v
WHERE Keyword = :user_input
ORDER BY Views DESC;
```

2. What is the most recent video upload of a channel? This question tells users what is new for a content creator and presents the latest content to watch.

```
SELECT v.VideoID, v.Title, v.Upload_date
FROM Videos
ORDER BY Upload_date DESC;
```

3. What video keyword gets the highest number of likes? This question helps users determine which video to view based on public opinion/census.

```
SELECT Keyword, MAX(Likes) AS MaxLikes
FROM videos
GROUP BY Keyword;
```

4. How many days has it been since the number 1 liked video was published? This question requires a user to gather the info of when the video got placed in the number one spot and we can use sql to determine the number of days since then.

```
SELECT SYSDATE - PublishedAt AS DaysSincePublication
FROM videos
WHERE Likes = (SELECT MAX(Likes) FROM videos);
```

5. What is the most watched and liked video? This question helps users see the view to like ratio to determine how many people who watched the video actually liked the video.

```
SELECT *
FROM videos
WHERE Views = (SELECT MAX(Views) FROM videos)
  OR Likes = (SELECT MAX(Likes) FROM videos);
```

6. What is the most liked video in each category/keyword? This allows users to see most like and disliked videos based on a category the user is interested in.

```
SELECT *
FROM (
   SELECT
      v.*,
      RANK() OVER (PARTITION BY Keyword ORDER BY Likes DESC) AS LikeRank
   FROM
      videos v
)
WHERE LikeRank = 1;
```

7. What is the highest like comment for each video? This is important as it portrays the general audience's respected opinion what what is said in the video.

```
SELECT *
FROM (
   SELECT
      c.*,
      RANK() OVER (PARTITION BY c.VideoID ORDER BY Likes DESC) AS LikeRank
   FROM
      comments c
)
WHERE LikeRank = 1;
```

8. Most viewed videos compared to their video title length? This allows users to see if a longer title length will attract more viewers.

```
SELECT Title, Views, LENGTH(Title) AS TitleLength
FROM videos
ORDER BY Views DESC;
```

9. When is the most popular time for new videos to be posted? This is important because it allows the user to get on the app during the optimum time for new videos.

```
SELECT TO_CHAR(PublishedAt, 'MM/DD/YYYY') AS PublishDate, COUNT(*) AS
VideoCount
FROM videos
GROUP BY TO_CHAR(PublishedAt, 'MM/DD/YYYY')
ORDER BY VideoCount DESC;
```

10. What dates do certain categories/keywords become more popular through the year? This question demonstrates when categories become more relevant throughout the year. I.e. technology during the winter, DIY during the summer

```
SELECT TO_CHAR(PublishedAt, 'MM/DD/YYYY') AS PublishDate, Keyword, COUNT(*) AS
VideoCount
FROM videos
GROUP BY TO_CHAR(PublishedAt, 'MM/DD/YYYY'), Keyword
ORDER BY Keyword, VideoCount DESC;
```

Team Metrics:

To come up with these 10 questions our group decided to use a discord call and video each other to get a team's understanding of how to come up with these questions. We viewed all questions as something that can be attained by skills we learned in class as well as challenging us to gather information from the internet.

Name	Questions Completed
Justin Bogner	2
Garret Ivie	3
Dominic Frederick	2
John Turner	3

Team contributions

Dominic Frederick: For Mike stone 3 my main job was to help complete the project description, help create solutions to the 10 questions , and revise the document to ensure there were no grammatical errors.

John Turner: I helped gather information into GitHub repository, I also assisted in the debugging of the code for the answers.

Garett Ivie: I wrote the code for this part of the milestone, I also helped with debugging of code. In addition, to this, I also wrote instructions on how to import the code into the SQL database.

Justin Bogner: I tested most of our instructions and did the main debugging of the code and helped garett with writing the instructions. I also added the questions from milestone 2 and made the necessary changes to our questions to make them possible.