Zoom, as a video communications company, deals with vast amounts of data related to user activity, meetings, and platform performance. This data is critical for making business decisions, from improving service reliability to identifying popular features.

This document outlines the official reporting requirements for the **Zoom Platform Analytics System** based on the current database structure. These requirements will guide the development of analytical dashboards to support daily decision-making processes

REPORT SPECIFICATIONS

1. PLATFORM USAGE & ADOPTION REPORT

Business Objective: Monitor user engagement and platform adoption rates to identify growth trends and areas for improvement.

Uses of the Report:

- Track key usage metrics like total meeting minutes and active users.

- Identify trends in new user sign-ups and meeting creation.

- Analyze usage patterns by user plan type (e.g., Free vs. Paid).

- Assess the adoption of new features.

Data Relationships Used:

- Meetings ➡️ Users (via Host_ID)

- Attendees ➡️ Meetings (via Meeting_ID)

- Features_Usage ➡️ Meetings (via Meeting_ID)

Data Attributes in the Report:

- User information (User_ID, Plan_Type)

- Meeting information (Meeting_ID, Duration_Minutes, Start_Time)

- Usage details (Feature_Name, Usage_Count)

- Calculated metrics (Total_Meeting_Minutes, Active_Users_Count)

KPIs and Metrics in the Report:

- **Daily/Weekly/Monthly Active Users (DAU/WAU/MAU)**

- Total meeting minutes per day

- Average meeting duration

- Number of meetings created per user

- New user sign-ups over time

- Feature adoption rate

Calculations in the Report:

- The total number of meeting minutes is determined by adding up the duration (in minutes) of all meetings.
- The average meeting duration is found by averaging the duration across all meetings.
- The active user count is the number of unique users who have hosted at least one meeting.
- The feature adoption rate measures the proportion of users who have used a specific feature at least once, compared to the total user base.

Data Constraints:

- Duration_Minutes must be a non-negative integer.

- Start_Time and End_Time must be valid timestamps.

- A Meeting_ID in Attendees or Features_Usage must exist in the Meetings table.

Visualizations:

- Line chart showing DAU/WAU/MAU trends.

- Bar chart comparing average meeting duration by Plan_Type.

- Pie chart showing feature usage distribution.

Access Control Requirements:

- **Product Managers:** Full access to feature adoption and user behavior data.

- **Marketing Team:** Access to new user and plan-type data.

- **Executives:** Aggregated view of key usage metrics with drill-down capability.

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2. SERVICE RELIABILITY & SUPPORT REPORT

Business Objective: Analyze platform stability and customer support interactions to improve service quality and reduce ticket volume.

Uses of the Report:

- Identify products or features that generate the most support tickets.

- Track ticket resolution times and patterns.

- Correlate meeting issues with ticket types.

- Assess the efficiency of the support team.

Data Relationships Used:

- Support_Tickets ➡️ Users (via User_ID)

- Support_Tickets ➡️ Meetings (implied link, not direct FK)

Data Attributes in the Report:

- Ticket information (Ticket_ID, Ticket_Type, Resolution_Status, Open_Date)

- User information (User_ID, Company)

- Calculated metrics (Average_Resolution_Time, Ticket_Volume_by_Type)

KPIs and Metrics in the Report:

- **Number of tickets opened per day/week.**

- Average ticket resolution time.

- Most common ticket types (e.g., audio issues, connectivity problems).

- First-contact resolution rate.

- Tickets opened per 1,000 active users.

Calculations in the Report:

- The ticket volume by type shows how many tickets were created for each type of issue.

- The average resolution time is calculated by determining the average time taken to close a ticket after it was opened.
- The user-to-ticket ratio compares the total number of tickets raised to the number of active users during the same period.

Data Constraints:

- Ticket_Type and Resolution_Status must be from a predefined list of values.

- User_ID must exist in the Users table.

- Open_Date must be a valid date.

Visualizations:

- Bar chart showing ticket volume by Ticket_Type.

- Line chart tracking average resolution time over time.

- Donut chart showing Resolution_Status distribution.

Access Control Requirements:

- **Support Team Leads:** Full access to all ticket data for their team.

- **Product & Engineering Teams:** Access to ticket types related to their features/products.

- **Executives:** High-level summary of ticket volume and resolution metrics.

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3. REVENUE AND LICENSE ANALYSIS REPORT

Business Objective: Monitor billing events and license utilization to understand revenue streams and customer value.

Uses of the Report:

- Track revenue trends by plan type.

- Analyze license assignment and expiration.

- Identify opportunities for upselling or cross-selling to users.

- Forecast future revenue based on license data.

Data Relationships Used:

- Billing_Events ➡️ Users (via User_ID)

- Licenses ➡️ Users (via Assigned_To_User_ID)

- Meetings ➡️ Users (via Host_ID)

Data Attributes in the Report:

- Billing information (Event_Type, Amount)

- License information (License_Type, Start_Date, End_Date)

- User information (User_ID, Plan_Type, Company)

- Meeting details (Host_ID, Duration_Minutes)

KPIs and Metrics in the Report:

- **Monthly Recurring Revenue (MRR).**

- Revenue by Plan_Type.

- License utilization rate.

- License expiration trends.

- Usage correlation with billing events (e.g., users who upgrade after a certain usage threshold).

Calculations in the Report:

- Total revenue is calculated by summing up all monetary amounts from billing events.

- The license utilization rate is the proportion of licenses that are currently assigned to users, out of the total number of licenses available.
- The churn rate measures the fraction of users who have stopped using the platform, compared to the total number of users.

Data Constraints:

- Amount must be a positive number.

- License_Type must be a predefined value.

- Start_Date must be before End_Date.

Visualizations:

- Line chart showing MRR trends over time.

- Stacked bar chart showing revenue distribution by Plan_Type.

- Table showing upcoming license expirations.

- Heat map showing geographic revenue distribution.

Access Control Requirements:

- **Finance & Sales Teams:** Full access to revenue and license data.

- **Account Managers:** Filtered access to their assigned accounts.

- **Executives:** Aggregated financial summary.

TECHNICAL REQUIREMENTS

Data Integration:

- Ensure all foreign key relationships are correctly implemented for accurate joins.

- Data must be validated against schema constraints (e.g., valid dates, non-negative numbers).

Performance:

- Optimize queries that aggregate data over large time periods.

- Create indices on frequently used columns like User_ID, Meeting_ID, and date fields.

- Implement data caching for frequently accessed reports to improve dashboard load times.

Security:

- Enforce **role-based access control** to ensure users only see data relevant to their roles.

- Anonymize or mask sensitive user data (Email, User_Name) for non-authorized users.

Report Delivery:

- Automate daily and weekly report generation for key stakeholders.

- Create an alert system to notify sales teams of expiring licenses or users nearing a plan's usage limits.

- Ensure all dashboards are mobile-responsive for on-the-go access.