**TECHNICAL ROUND 1- Analytics Proposal**

**1. Group Sentiment Pulse**

* **Description**: This keeps track of the overall vibe of the group based on message sentiment – whether things are positive, negative, or neutral. It’s a quick way for admins to see if there’s any tension or if everyone’s in a good mood, so they can jump in and manage things accordingly.

**2. Message Impact Score**

* **Description**: This looks at how much attention a message gets, considering how many views, replies, and forwards it gets. If you want to know which messages are really making an impact, this is the perfect way to track it. It helps admins spot content that’s really getting noticed.

**3. Message Trend Tracker**

* **Description**: It tracks the change in what people talk about over time, by checking out the hashtags or keywords. Admins can see what’s trending and adjust the group’s discussions to match what people are interested in.

**4. User Activity Clusters**

* **Description**: This groups users based on how active they are. It can help admins figure out who the super-engaged members are, who just lurks, and who has their own style – like, if someone only shares media or just text. It helps make the group more personalized.

**5. Group Cohesion Index**

* **Description**: It looks at how often group members interact with each other. If people are replying to each other a lot, the group’s more connected. Admins can use this to spot areas where engagement might need a little nudge.

**6. Bot vs. Human Engagement Ratio**

* **Description**: This tracks how bots are interacting versus human members. If bots are doing most of the talking, it could mean the group feels less personal. Admins can use this data to ensure real people are engaging more.

**7. Group Content Engagement Diversity**

* **Description**: Measures the types of content being shared – like, is it mostly text or are people sharing videos and links? Admins can use this to see if the group’s content is diverse enough or if members are sticking to one type of content.

**8. Group Activity Heatmap**

* **Description**: It’s like a visual map of when the group is most active – is it in the morning, late evening, or weekends? This helps admins figure out the best times to post important stuff or interact with the group.

**9. Top Contributor Influence**

* **Description**: It’s not just about who sends the most messages, but who really drives conversations and gets the most replies. This helps admins spot the people who are shaping the discussions in the group.

**10. Message Lifespan**

* **Description**: This tracks how long a message stays relevant, by checking how long it continues to get attention after it’s posted. It’s great for admins to see which messages have a lasting impact and which ones die off quickly.

**11. Group Evolution Score**

* **Description**: This is like a health check for your group. It looks at how activity, member count, and content types change over time. If the group’s getting more active or growing, this score shows that. Admins can use this to see how things are progressing.

**12. Reply-to-Message Engagement Ratio**

* **Description**: It tracks how many replies a message gets compared to how many messages are sent. This helps admins see if members are actively engaging with each other or just sending out messages without much interaction.

**13. Message Interaction Velocity**

* **Description**: This tracks how fast messages start getting responses, views, or forwards. If messages are getting attention right away, it shows the content’s interesting. Admins can use this info to tweak their communication timing.

**14. Group Mood Shift Timeline**

* **Description**: This keeps track of how the group’s mood changes over time. If people are getting more negative or positive, it’s easy to spot. Admins can step in if things start to go off track or if the group’s becoming too negative.

**15. Elite Member Engagement Circles**

* **Description**: This tracks the top 10% of members who send the most messages or get the most replies. These are the people who are the most influential. Admins can keep an eye on them to understand what’s working well in terms of group dynamics.

**16. Content Frequency Ratio**

* **Description**: This measures how often certain types of content (like media vs. text) get shared in the group. Admins can use this to figure out if people prefer visual content or written content and adjust their posts accordingly.

**17. Growth Velocity of Admin Roles**

* **Description**: This tracks how quickly admin roles are growing – like, are more people becoming admins, or is the admin team stagnant? It helps admins understand if they need to share responsibilities or if they have enough support.

**18. Sentiment Response Delay**

* **Description**: This measures how long it takes for people to respond to messages, based on whether they’re positive, neutral, or negative. It helps admins understand if certain moods take longer to get responses, so they can be more strategic in their communications.

**19. Pinned Message Recurrence**

* **Description**: This counts how often messages are pinned and unpinned. If certain messages keep getting pinned, it shows which ones are really important. Admins can use this to see which announcements or updates need more visibility.

**20. Invisible Member Activity**

* **Description**: This identifies members who are viewing messages or reacting but not really participating in conversations. It’s a good way for admins to spot members who might need a little encouragement to get more involved.

**TECHNICAL ROUND 2 - Admin Dashboard Design**

1. **Total Groups Managed**

* **What it shows**: The total number of groups an admin oversees. A snapshot of how much responsibility they’ve got on their plate. It gives admins a sense of the workload and how spread out their influence is.

2. **Active Members per Group**

* **What it shows**: How many members are actively participating in each group (based on their recent actions). This helps admins figure out which groups are buzzing and which might need a little more love to get active.

3. **Member Retention Rate**

* **What it shows**: The percentage of members who stick around after joining. It's like a report card for the group’s vibe and engagement levels. If retention's low, it might be time to spice things up!

4. **Group Growth Over Time**

* **What it shows**: Tracks the growth of each group. Whether they’re soaring or plateauing. This gives admins a real-time pulse on whether the group is thriving or if it needs some strategy to get back on track.

5. **Top 5 Active Members**

* **What it shows**: Who’s leading the pack in activity within the group? These members are the engines of engagement, making the group more dynamic. Highlighting them can inspire others to participate more.

6. **Message Type Breakdown**

* **What it shows**: A breakdown of the types of messages being sent (text, media, links, etc.). Helps admins figure out what kind of content members love to engage with. Maybe everyone’s into memes, or long discussions, or the latest news!

7. **Engagement Rate per Group**

* **What it shows**: The total interactions (messages, replies, etc.) per group member. This one’s like a health check for your groups, giving admins insight into how active and engaged members are.

8. **Hashtag Usage Frequency**

* **What it shows**: Tracks the most used hashtags. This is where you’ll spot trends and what’s making the rounds in the group. Great for spotting discussions that are getting a lot of traction!

9. **Top Trending Topics**

* **What it shows**: What’s the buzz in the group? This is a summary of the most talked-about keywords or phrases. Perfect for keeping an eye on the hottest conversations.

10. **Top 5 Sent Messages**

* **What it shows**: The five messages that got sent out the most in the group. These are the posts that people keep sharing, forwarding, or reacting to. They could be goldmines for figuring out what content resonates best.

11. **Message Sentiment Analysis**

* **What it shows**: Analyzes the overall mood of messages—whether they’re positive, negative, or neutral. This helps admins keep track of the group's overall vibe and catch any negativity early.

12. **Bots vs. Human Member Count**

* **What it shows**: The ratio of bots to humans in the group. A useful metric for keeping the automated content under control and ensuring members aren’t feeling overwhelmed by bots.

13. **Time of Peak Activity**

* **What it shows**: Identifies when the group sees the most action. Helps admins plan when to make big announcements or post important content for maximum impact.

14. **Message Response Time**

* **What it shows**: Measures how fast members are replying to messages. If responses are slow, it could indicate low engagement. If responses are fast, then your group is firing on all cylinders!

15. **Group Member Demographics**

* **What it shows**: A snapshot of the group’s member base—age, location, job titles, and more. Helps admins tailor content and discussions to the specific needs and interests of the audience.

16. **Most Active Time of Day**

* **What it shows**: The time of day when most messages are sent. This helps admins figure out when to jump into action with posts, activities, or engagement strategies.

17. **Message Popularity (Views/Forwards)**

* **What it shows**: Tracks how often messages are viewed or forwarded by members. It’s the engagement signal that tells admins what kind of content gets the most exposure.

18. **Number of Replies per Message**

* **What it shows**: How many replies a message typically gets. If a message generates a lot of replies, it’s sparking conversation. If not, maybe it’s time for a new approach.

19. **Member Role Distribution**

* **What it shows**: Breaks down how many admins, members, and moderators are in the group. This helps admins ensure there’s a balanced power structure and that roles are distributed appropriately.

20. **Pin Usage Frequency**

* **What it shows**: How often messages are pinned. Pinning is a sign that something’s important. Admins can use this to gauge which messages are considered essential by members.

21. **Group Visibility Insights**

* **What it shows**: Gives a look at whether the group is public, private, or restricted. Understanding visibility settings helps admins decide if they want to grow the group or keep it exclusive.

22. **Member Join/Leave Rate**

* **What it shows**: Measures how often members join or leave the group. High turnover might be a sign that something’s off—admins can use this to keep track of member retention strategies.

23. **Most Popular Media Shared**

* **What it shows**: Tracks which types of media are being shared most (images, videos, GIFs, etc.). Helps admins figure out what kind of visual content members are responding to the most.

24. **Content Contribution per Member**

* **What it shows**: How many posts or media each member is contributing. This helps admins see which members are consistently active and which might need a nudge to participate more.

25. **Bots’ Activity in the Group**

* **What it shows**: Tracks bot activity—whether they’re sending messages or responding to interactions. Helps keep automation in check so bots don’t get too spammy.

26. **Time Since Last Active Member Joined**

* **What it shows**: Shows when the last active member joined the group. If it’s been a while, admins might want to focus on member recruitment or improve engagement strategies.

27. **Message Sent Per Admin**

* **What it shows**: Tracks how many messages are sent by each admin. If admins aren’t posting enough, it might be time to encourage more communication to keep the group engaged.

28. **Message Length Distribution**

* **What it shows**: Analyzes how long (or short) the messages are in the group. Helps admins understand if members prefer quick updates or detailed discussions.

29. **Post Reaction Rate (Likes, Shares)**

* **What it shows**: Measures how many likes, shares, or reactions each post gets. This is a direct indicator of how well content is resonating with the group.

30. **Member Engagement Trends**

* **What it shows**: Visualizes how engagement changes over time, highlighting periods of high or low activity. This gives admins an overview of group dynamics and helps identify strategies to boost participation.