OLAP

Exercise Category

User	Balan..	Cardio	Core	HIIT	Pilates	Stren..	Stret..	Yoga
User1	1	1		1		2		1
User2	1	2	1	1	1	2	1	1
User3				2	2	1	1	
User4		1	1			1	2	
User5		1	2	2	2	2		2
User6	1	1		1	1	1	1	
User7			1	1	2	1	2	
User8		1	1	2	1	1	1	2
User9	2			1	2		1	1
User10	2	2		1		1		1

Total Exercises Completed by Users
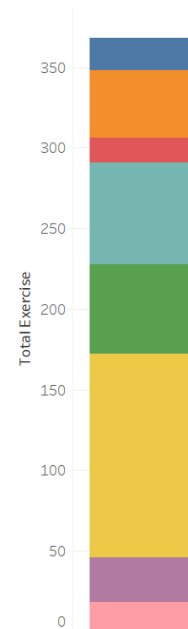
In the OLAP chart, we constructed data in a hierarchical format, with rows representing the user hierarchy and whether they completed the exercise or not, and columns describing the exercise category, the exercise itself, and its difficulty level from one to five. This chart is significant for the fitness center as it provides a comprehensive overview of trainees' involvement and performance regarding different training categories and their difficulty levels. It allows the fitness center to identify patterns, trends, and areas for improvement in trainees' interaction with exercises.

From this chart, we can gain insights into user behavior and realize the effectiveness. For example, we can see which exercise categories are more challenging for users and whether the difficulty levels match the workouts. It is important for the fitness center to know this information about the trainees because it helps them better tailor their workouts. By understanding which workouts are more challenging and how users perform, the fitness center can adjust the difficulty levels and content of their workouts to better suit the needs of their trainees. This leads to an improvement in trainee satisfaction and engagement, and ultimately benefits the reputation and retention rates of the fitness center.

Additionally, we created a graph that displays the number of workouts completed by users. This graph is critical because by tracking the workouts, the fitness center can assess the effectiveness of their workouts and identify potential issues that may need to be addressed, such as low participation rates in workouts or dissatisfaction with certain workouts. This insight allows the fitness center to make informed decisions about how to improve their workouts and make the trainees' experience better accordingly.