

# Descriptive Statistics

## Task 1

In 2022, there were high expectations for the growth of the 365 company and increased student engagement based on the introduction of new website platform features. Some of these features included an XP system that enabled students to track their progress, level up, and earn rewards by completing various learning objectives. The platform also offered in-app coins that could be exchanged for special awards, a leaderboard where students could compete for top positions in different divisions, earning weekly rewards and advancing up the ladder, and streaks to motivate students to maintain consistent learning habits.

Please open the 'Engagement project.xlsx' file and navigate to the 'Task 1 and 2' sheet using Microsoft Excel. Your first task is to provide insights into the relative engagement levels in Q4 2021 and Q4 2022. You will focus on low-engagement users (those who watched between 1 and 100 minutes in 2021). Low-engagement users often represent the most significant potential for growth. If 365 can find ways to increase its usage, it could significantly impact the overall use of the platform.

If there are repeated students who watched in Q4 2021 and Q4 2022, how does their engagement compare between the two periods? Compute the mean, median, and standard deviation for these groups. Is there a difference in engagement between paid- and free-plan subscribers?

1. Open the 'Engagement project.xlsx' file and navigate to the 'Task 1 and 2' sheet using Microsoft Excel.
2. Apply the AVERAGE, MEDIAN, and STDEV.S Excel functions to the 'minutes\_watched' column to compute the mean, median, and standard deviation for both groups (free- and paid-plan students).