



OPTIMIZING GYM OFFERINGS THROUGH MEMBER DATA ANALYSIS

INSIGHTS INTO CURRENT TRENDS AND FUTURE OPPORTUNITIES

MAXIMIZING CLIENT ENGAGEMENT AND GROWTH

Objective:

- Leverage client data to better understand behaviors of existing clients and identify opportunities for class offerings that will aid current client engagement and increase prospective future clients.

Questions Addressed:

- What workout types are the most popular at different experience levels?
- Are there any gaps in demographics that can help suggest new classes and outreach?
- How can this gym optimize offerings to retain clients and gain new ones.?



BACKGROUND INFORMATION



- **GYM MISSION AND CONCEPT**

A gym is designed to provide a wide range of fitness goals, offering diverse programs that can be further customized to different experience levels. They aim to provide a positive and inclusive environment for those seeking to improve their overall health and wellness.

- **CLIENT DEMOGRAPHICS AND FITNESS GOALS**

A gym will have clients of all ages, from seniors to young adults, each with their own specific goals and fitness levels. Some of these fitness goals include weight loss, strength building, and flexibility. Each of these goals will have specific needs for classes or equipment. By better understanding the clientel we are able to offer a more targeted gym approach.



DATA EXPLANATION

DATA SOURCE AND DESCRIPTION

- Gym Members Exercise Dataset from Kaggle
- Includes health data
 - age, weight, gender, and height
- Includes workout data
 - workout type, session duration, workout frequency, calories burned

KEY VARIABLES

- Age
- Gender
- Workout Type
- Experience Level
- Session Duration
- BMI

DATA PREPARATION

- Data was checked for missing variables
- Variables like workout type were encoded to numerical values using label encoding
 - This allowed for an effective analysis and comparison across categories and ensured that the data was ready for modeling



METHODS

DATA CLEANING AND FEATURE SELECTION

- removed inconsistencies and encoded categorical variables such as workout type.
- Focused on key variables such as Gender, Experience Level, Session Duration, and Workout Type

VISUALIZATIONS

Identified patterns and trends using bar charts, histograms and correlation matrices.

TOOLS

Python was used with libraries such as Pandas, Matplotlib, and Seaborn for the analysis and the visualizations.

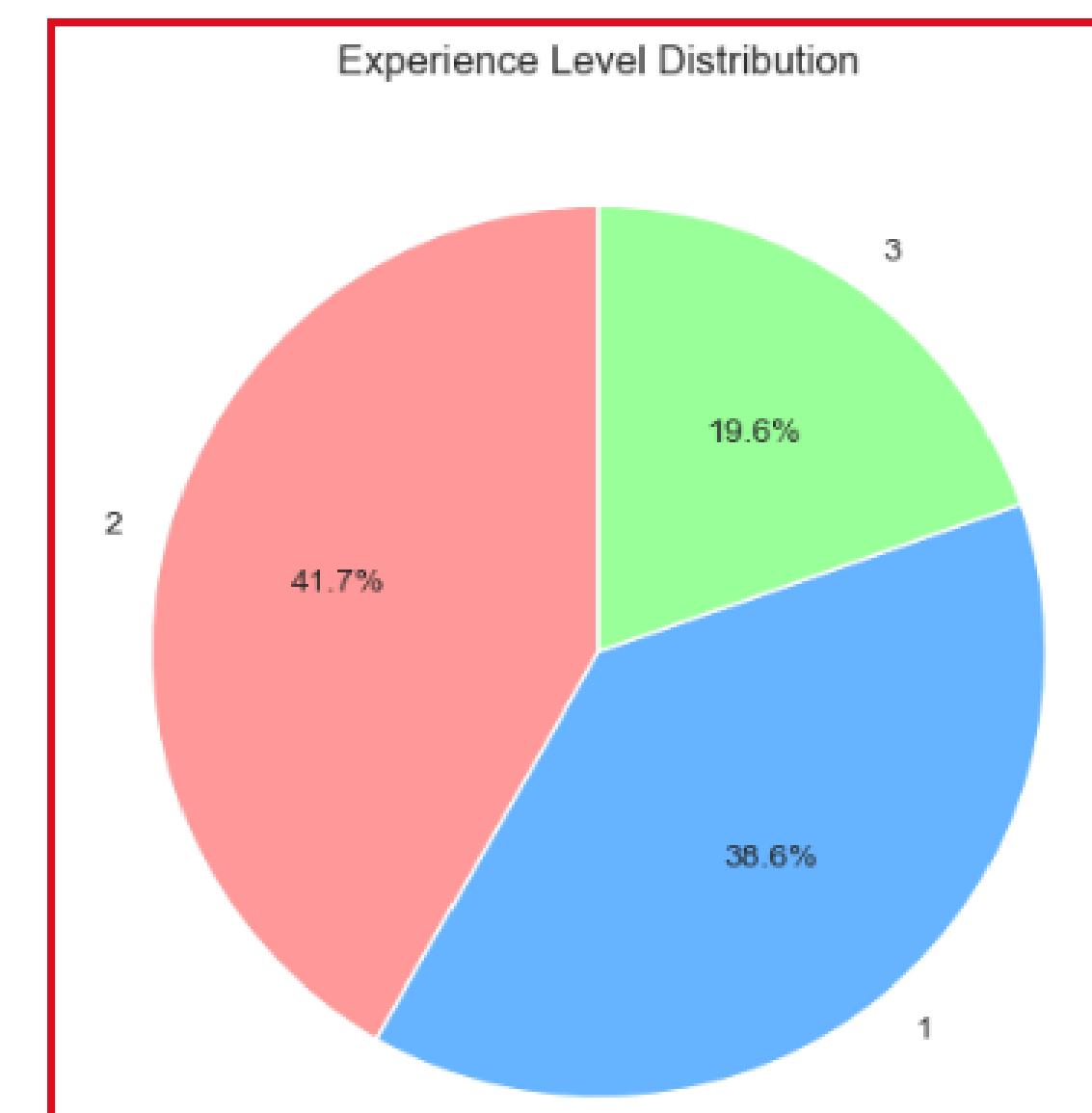
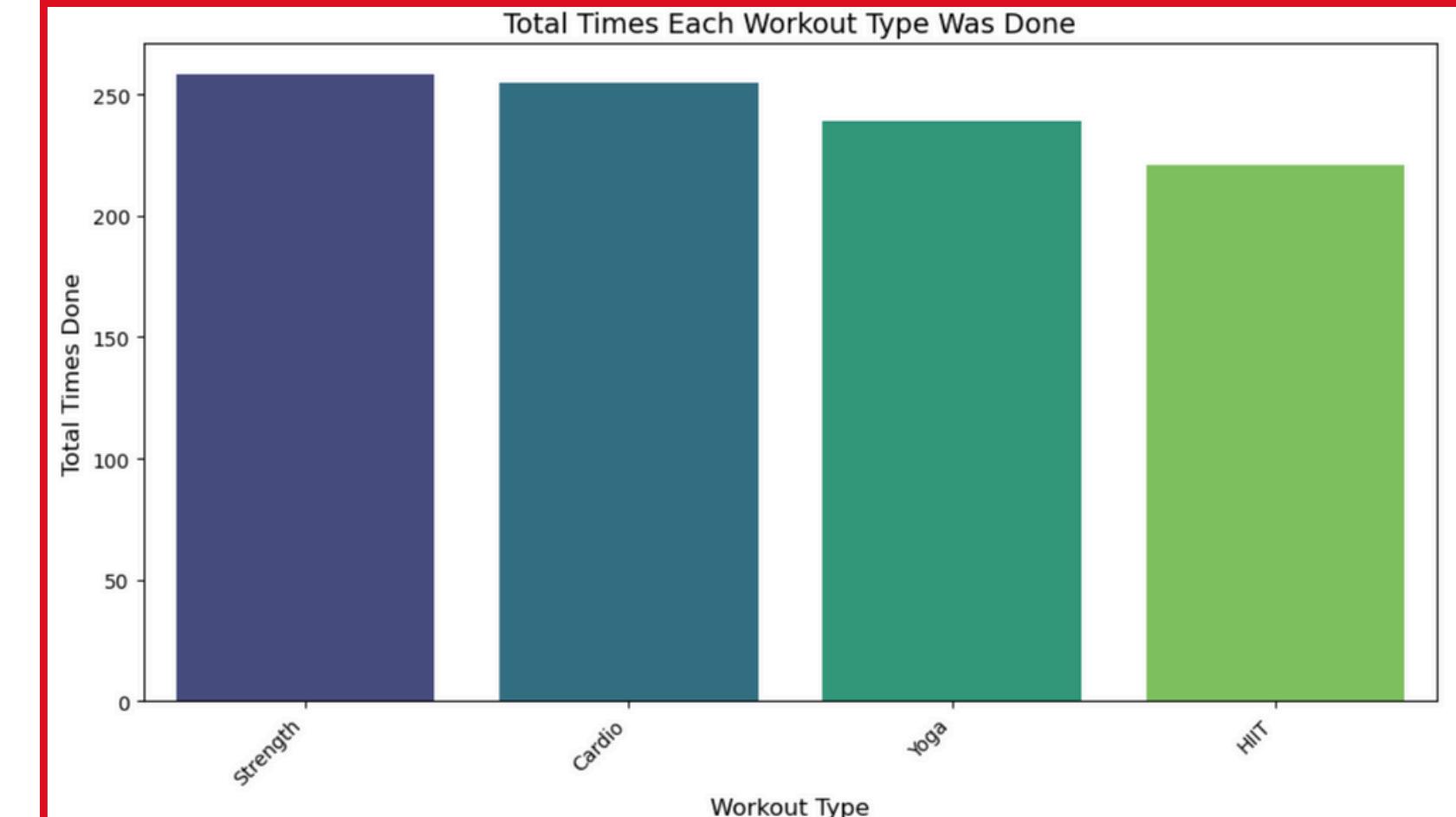
A BROAD VIEW

Workout Type Highlights:

- Strength workouts were the most popular overall
- HIIT workouts were done the least among all of the members

Experience Level Highlights:

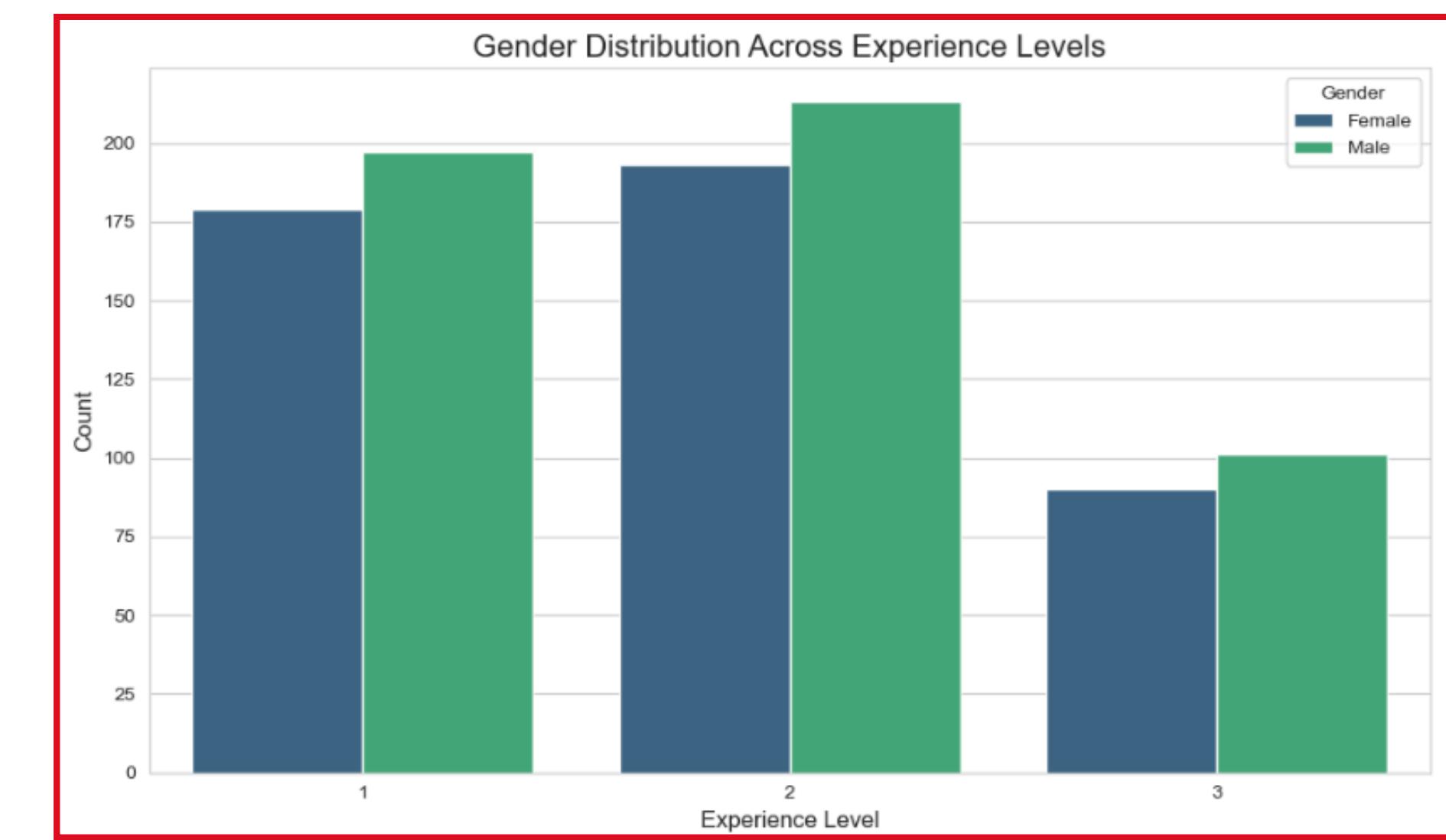
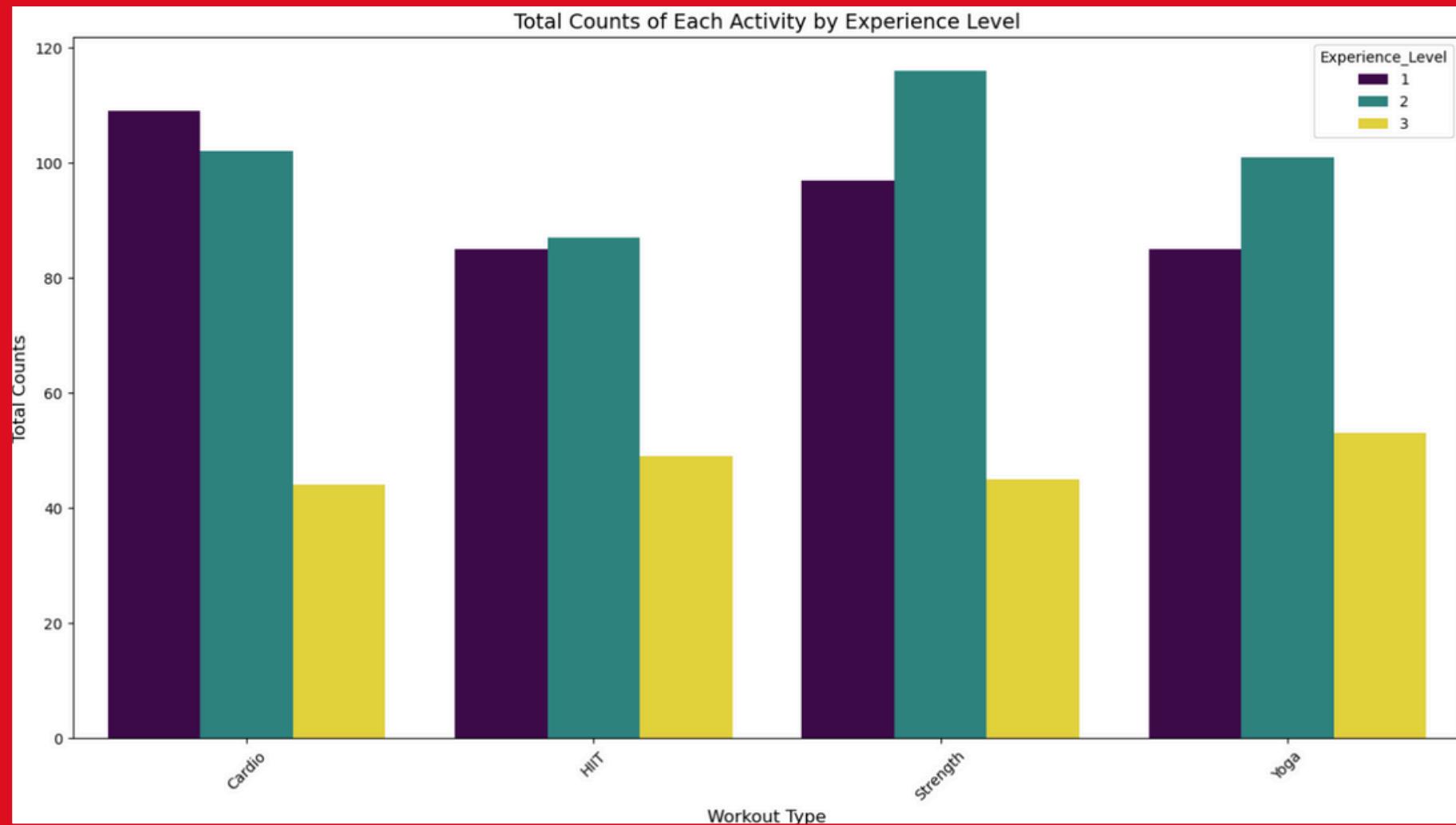
- Experience Level 2 has the most number of members
- Experience Level 3 has a significantly less compared to the other levels



EXPERIENCE LEVEL INSIGHTS

Highlights:

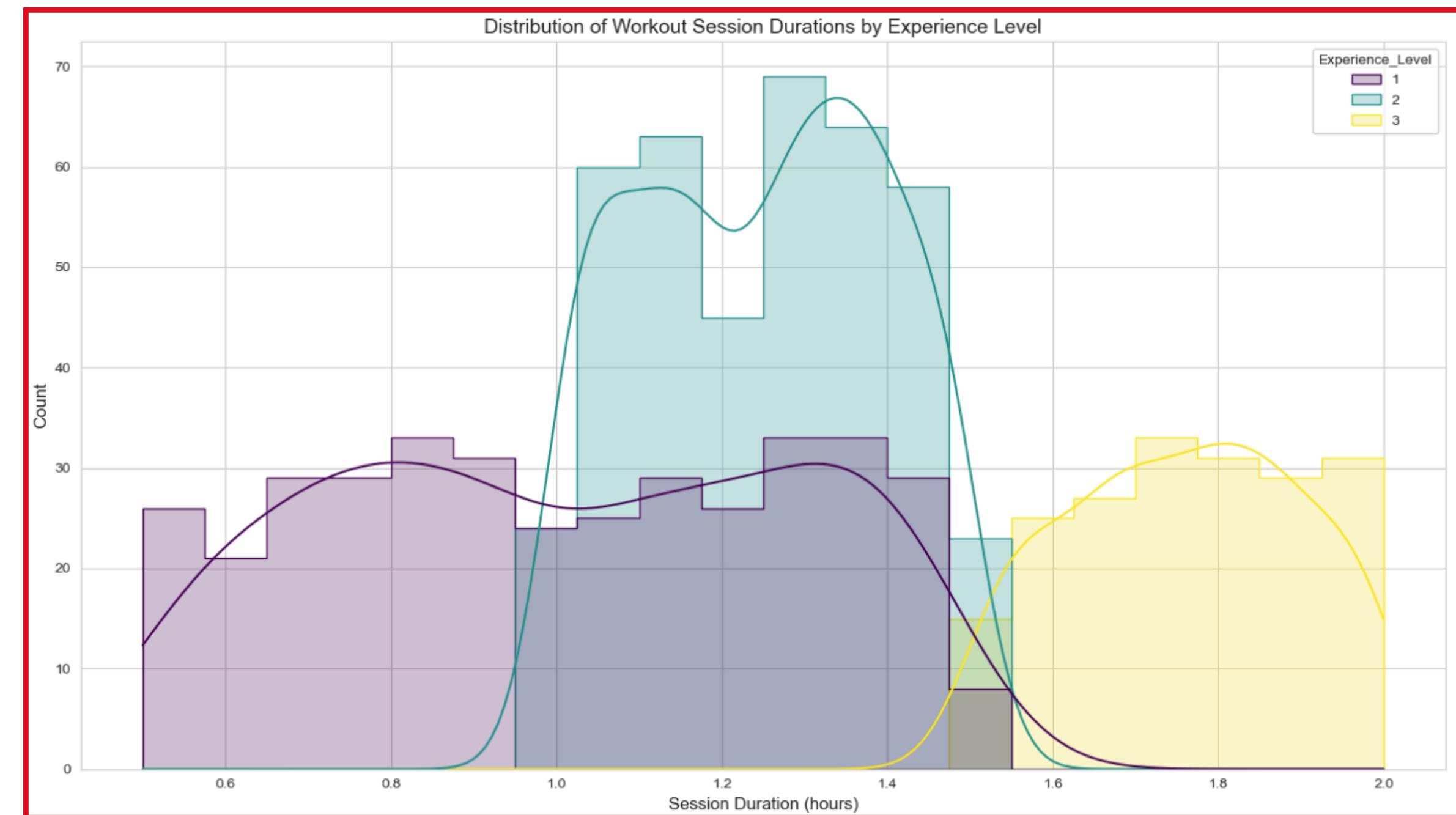
- Experience Level 2
 - Clients attended the strength workouts the most
- Experience Level 3
 - Clients attended the yoga workouts the most
- With all experience levels there were fewer women compared to men



WORKOUT SESSION DURATION

Highlights:

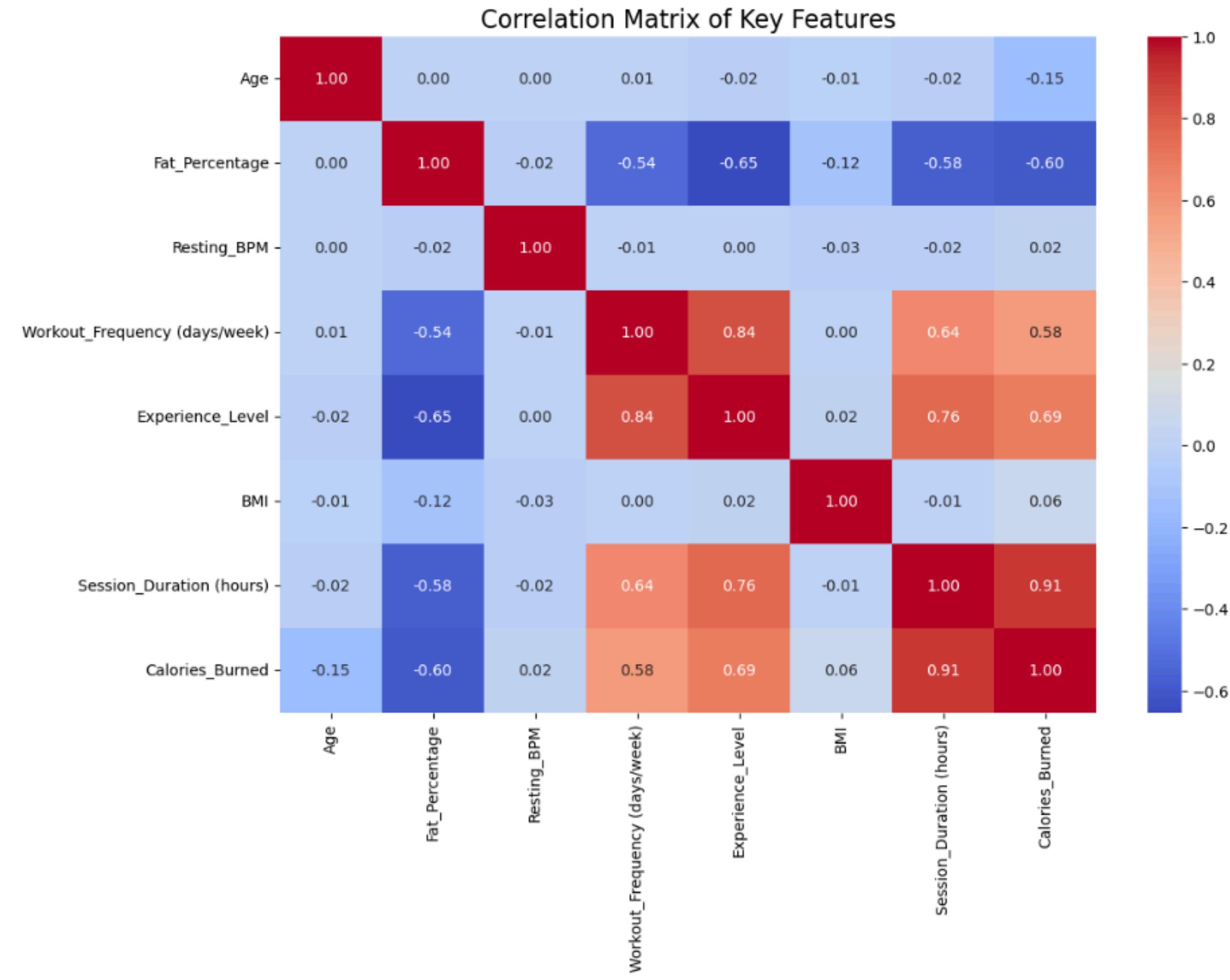
- Experience Level 2
 - Most sessions lasted from 1-1.5 hours
- Experience Level 3
 - Most sessions lasted 1.5 to 2 hours.
- Clear progression in session length as experience level increases



CORRELATION INSIGHTS

Highlights:

- Analyzed correlations between session duration and workout frequency
- Experience level had the strongest impact on workout frequency (0.84)
- Session duration correlated highly with:
 - Calories Burned (0.91)
 - Experience Level (0.76)



CONCLUSION

Findings:

- Strength workouts and Experience Level 2 dominate client activity
- High correlation between session duration and Experience Level
- Consistently fewer women across all experience levels
- There are opportunities exist to cater to under represented groups and less popular activities



ASSUMPTIONS & LIMITATIONS



ASSUMPTIONS

- Data represents all of the gym members
- Members accurately and consistently record their workouts
- Workout habits remain consistent overtime

LIMITATIONS

- Potential bias in self reporting
- Missing insights into other qualitative factors (such as client satisfaction, motivation and date)
- Lack of further insight into current classes, marketing and offerings

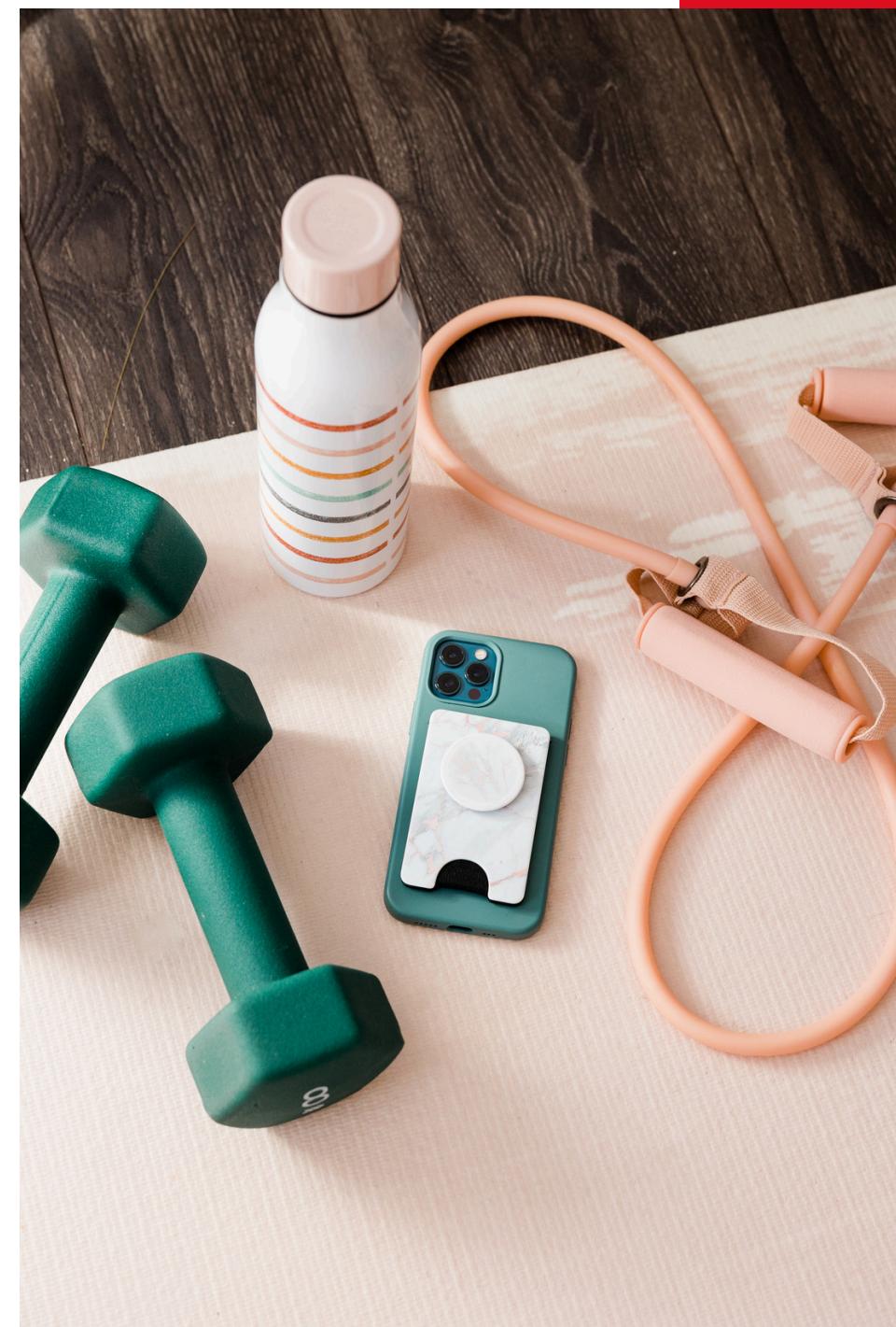
FUTURE USE & RECOMMENDATIONS

Future Use:

- Gather further data with qualitative insights (such as surveys on client preferences)
- Track long-term trends in client progression and retention

Recommendations:

- Create more strength focused classes and yoga classes
- Design programs targeting the Experience Level 2 members
- Conduct outreach to attract more Experience Level 3 members and women



IMPLEMENTATION PLAN



1

Data Driven Program Design

- Use insights to create new class schedules and workout plans

2

Targeted Marketing Campaigns

- Focusing on women and Experience Level 3 members

3

Resource Allocation

- Add more equipment and trainers for strength and yoga classes

4

Client Feedback

- Gather further data input through surveys and feedback opportunities



ETHICAL CONSIDERATIONS

1

Data Privacy and Security

- Ensure that member data is securely stored and anonymized

2

Transparency

- Being clear in communication about how member data is used to inform decisions

3

Consent

- Gain explicit informed consent for data collection and analysis





THANK
YOU

