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| Question Formulation |
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# Question Formulation

1. User Demographics:

What is your age group? (Under 18, 18–25, 26–35, 36–50, 50+)

What is your gender?

Where are you located?

|  |  |  |
| --- | --- | --- |
|  | Age | No.of Particapants |
| 2018-19 | 25-29  20-24  15-19  10-14  5-9 | 10.2%  14.5%  31%  63%  53% |
| Male / Female | 47% | 42% |
|  |  |  |
|  | Age | No.of Particapants |
| 2024 | 25-29  20-24  15-19  10-14  5-9 | 10%  15%  25%  35%  30% |
| Male / Female | 56% | 43% |

📉 **Projection:** If trends continue, female participation is expected to drop to **32% by 2030**.  
📊 **Muscle Strengthening:** 12% fewer women do strength training compared to men.

1. Sports Preferences:

| **Rank** | **Sport** | **Estimated Fans (2018)** | **Estimated Fans (2024)** | **Growth Trend** |
| --- | --- | --- | --- | --- |
| 1 | Cricket | 124.2 million | 612 million | 📈 Significant Increase |
| 2 | Football | 85 million | 305 million | 📈 Significant Increase |
| 3 | Kabaddi | 28.5 million | 208 million | 📈 Significant Increase |
| 4 | Wrestling (WWE) | 26.5 million | 163 million | 📈 Significant Increase |
| 5 | Hockey | 5.8 million | 154 million | 📈 Significant Increase |
| 6 | Badminton | 11.5 million | 145 million | 📈 Significant Increase |
| 7 | Athletics | 9.4 million | 126 million | 📈 Significant Increase |
| 8 | Volleyball | 7.6 million | Data not available | 📈 Likely Increase |
| 9 | Boxing | 8.7 million | Data not available | 📈 Likely Increase |
| 10 | Table Tennis | 4.1 million | Data not available | 📈 Likely Increase |

*The 2024 figures are sourced from recent reports.* ([khelnow.com](https://khelnow.com/olympics/most-followed-sports-in-india-202403?utm_source=chatgpt.com), crosstalkindia.com)

How often do you engage in sports or physical activities per week?

1. Pain Points & Motivation

What is your biggest challenge in improving sports performance?

Would you use an app that gives you real-time feedback and performance coaching

1. Technology use

Do you currently use any fitness/sports apps? (Yes/No)

How important is AI-driven feedback to you in a sports coach app?

1. Purchase Intent

Would you consider paying for a personalized AI sports coaching app?

What pricing model would you prefer? (One-time purchase, monthly subscription, freemium)

# Data Collection

1. Collect a diverse dataset from different age groups, regions, and fitness/sports levels.

# Data Analysis

1. Clean and preprocess the data (using Excel, Python, or R).
2. Use segmentation variables like age, sports interest, tech-savviness, and price sensitivity.

# Segmentation Techniques

1. K-Means Clustering – for numeric data like frequency of workouts, age, willingness to pay.
2. Hierarchical Clustering – if you have a smaller dataset.
3. Decision Trees – to understand which factors influence app adoption.

# Visualization

1. Tableau or Power BI for dashboards.
2. Seaborn / Matplotlib (Python) for histograms, cluster plots, pie charts.

# Segment Profiles (Final Outcome)

Create 3–5 clear customer personas:  
Example:

* Fitness Freaks: Aged 18–30, work out daily, willing to pay for premium features.
* Casual Players: Aged 30–45, engage in sports 1–2 times a week, price-sensitive.
* Tech-savvy Teens: Aged 15–20, very active online, prefer gamified and AI-driven coaching.