

User

User

```
{
  _id: ObjectId,
  name: String,
  email: String,
  phone: String,
  passwordHash: String, // for secure login
  gender: "male" | "female" | "other",
  dateOfBirth: Date,
  heightCm: Number,
  weightKg: Number,
  profileImageUrl: String, // optional

  preferences: {
    preferredWorkoutTime: String, // "06:30"
    preferredMealReminders: [String], // ["08:00", "13:00", "20:00"]
    moodReminderTime: String // "21:00"
  },

  // ☒ Exercise module
  exercise: {
    defaultPlanId: ObjectId, // from WorkoutPlan
    customPlanIds: [ObjectId], // from WorkoutPlan
    activeGoalId: ObjectId, // from Goal
    streakCount: Number,
    lastWorkoutDate: Date,
    totalCaloriesBurned: Number,
    totalWorkoutTimeMinutes: Number,
    badgeIds: [ObjectId] // from Badge
  },

  // ☒ Nutrition & Diet module
  nutrition: {
    defaultMealPlanId: ObjectId, // from MealPlan
    customMealPlanIds: [ObjectId], // from MealPlan
    waterTargetLiters: Number,
    totalWaterDrunkToday: Number,
    calorieTargetPerDay: Number,
    nutritionStats: {
      protein: Number,
      carbs: Number,
      fats: Number,
      fiber: Number,
      sugar: Number,
      vitamins: [String]
    }
  },

  // ☒ Mental Health module
  mental: {
    lastMoodLogged: Date,
    weeklyMentalHealthReportId: ObjectId // from MentalHealthReport
  },
}
```

```
    createdAt: Date,  
    updatedAt: Date  
}
```

Workoutplan

```
{  
  _id: ObjectId,  
  name: String,  
  type: "default" | "custom",  
  userId: ObjectId, // null for default plans  
  exercises: [ObjectId], // list of Exercise _ids  
  createdAt: Date  
}
```

Exercise

```
{  
  _id: ObjectId,  
  name: String,  
  category: String, // e.g., Strength, Cardio  
  durationType: "time" | "reps",  
  defaultSets: Number,  
  defaultReps: Number,  
  defaultDurationSec: Number, // if time-based  
  intensity: String, // e.g., "Low", "Medium", "High"  
  targetMuscles: [String],  
  videoUrl: String,  
  instructions: String  
}
```

Badge

```
{  
  _id: ObjectId,  
  name: String, // e.g., "Streak Master", "500 Calorie Burner"  
  description: String, // e.g., "Awarded for 10-day workout streak"  
  imageUrl: String, // image/icon for badge  
  condition: {  
    type: "streak" | "calories" | "workouts" | "time",  
    threshold: Number // e.g., 10 for streak, 500 for calories, etc.  
  },  
  createdAt: Date  
}
```

Exerciselog

```
{  
  _id: ObjectId,  
  userId: ObjectId,  
  exerciseId: ObjectId,  
  date: Date,  
  startTime: Date,  
  endTime: Date,  
  sets: Number,  
  reps: Number,  
  durationSec: Number,  
  caloriesBurned: Number,  
}
```

```

    notes: String
  }
Goal
{
  _id: ObjectId,
  userId: ObjectId,
  type: "weekly" | "daily",
  metric: "workouts" | "calories" | "minutes" | "steps",
  targetValue: Number,
  currentValue: Number,
  startDate: Date,
  endDate: Date,
  completed: Boolean
}

MealPlan
{
  _id: ObjectId,
  name: String,
  type: "default" | "custom",
  userId: ObjectId, // null for default plans
  meals: [ObjectId], // list of Meal _ids
  createdAt: Date
}
Meal
{
  _id: ObjectId,
  name: String,
  description: String,
  foodItems: [ObjectId], // references to FoodItem
  loggedTime: Date, // actual meal time
  userId: ObjectId,
  mealType: "breakfast" | "lunch" | "dinner" | "snack"
}
FoodItem
{
  _id: ObjectId,
  name: String,
  calories: Number,
  servingSize: String,
  macronutrients: {
    protein: Number, // grams
    carbs: Number,   // grams
    fat: Number       // grams
  },
  micronutrients: {
    vitaminA: Number,
    vitaminC: Number,
    iron: Number,
    calcium: Number,
    // extendable as needed
  }
}
WaterLog

```

```

{
  _id: ObjectId,
  userId: ObjectId,
  amountML: Number,
  time: Date
}
NutritionStats
{
  _id: ObjectId,
  userId: ObjectId,
  date: Date,
  totalCalories: Number,
  macros: {
    protein: Number,
    carbs: Number,
    fat: Number
  },
  micros: {
    vitaminA: Number,
    iron: Number,
    calcium: Number,
    // etc.
  },
  waterConsumedML: Number
}

MoodLog
{
  _id: ObjectId,
  userId: ObjectId,
  mood: "happy" | "sad" | "anxious" | "angry" | "calm" | "stressed" | "neutral",
  // use enums or moodId from another collection
  note: String,
  timestamp: Date
}
BreathingExercise
{
  _id: ObjectId,
  name: String,
  description: String,
  moodTarget: ["anxious", "stressed", "sad"], // moods this exercise helps with
  durationSeconds: Number,
  videoUrl: String, // optional
  steps: [String], // step-by-step instructions
}
MentalHealthReport
{
  _id: ObjectId,
  userId: ObjectId,
  weekStart: Date,
  weekEnd: Date,
  moodSummary: {
    happy: Number,
    sad: Number,

```

```

    anxious: Number,
    stressed: Number,
    calm: Number,
    angry: Number,
    neutral: Number
  },
  moodTrends: [ // optional - for visualization
    {
      date: Date,
      mood: String
    }
  ],
  suggestions: [String]
}

Reminder
{
  _id: ObjectId,
  userId: ObjectId,
  type: "workout" | "meal" | "water" | "mood",
  message: String,          // e.g., "Time for your workout!" or "Log your mood
  time: String,             // "06:30", "13:00", etc.
  channel: "sms" | "email",
  active: Boolean,          // if the reminder is currently enabled
  via: [String],            // ["sms", "email"] – optional redundancy with
  `channel` if you want multi-channel reminders
  createdAt: Date,
  updatedAt: Date
}

```