

# IRON REPUBLIC FITNESS



How a **Python member retention dashboard** helped a three-site gym group identify which members were about to cancel – 30 days before they did – and reduce monthly churn from 8.4% to 3.1% in 90 days.

CLIENT Iron Republic Fitness	SITES 3 Gyms · 2,400 Members	STACK Python · Streamlit · Plotly	REF CS-07 / 08
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**8.4% → 3.1%**

MONTHLY CHURN  
REDUCED IN 90 DAYS

**£96K**

ANNUAL REVENUE  
RETAINED FROM CHURN FIX

**30 DAY**

EARLY WARNING BEFORE  
MEMBER CANCELS

**312**

AT-RISK MEMBERS  
IDENTIFIED & SAVED

# MEMBERS WERE LEAVING. NOBODY SAW IT COMING.

Iron Republic Fitness operates three sites with 2,400 total members paying between £35 and £65 per month. Monthly churn was running at 8.4% – meaning the gym was losing roughly 200 members every month. New member acquisition was covering the loss at the headline level, but the hidden cost of constant replacement – marketing spend, induction time, short membership durations – was eroding margin significantly.

The gym managers had no early warning system. When a member cancelled, it was already too late. There was no analysis of what “at-risk” behaviour looked like before cancellation – no visit frequency analysis, no class attendance tracking, no payment failure monitoring that predicted rather than reacted.

The data existed: the access control system logged every entry, the class booking system tracked attendance, and the payment platform logged every transaction. Nobody had connected them. A member could drop from 3 visits per week to zero visits in 30 days – a clear signal of disengagement – without anyone at the gym being aware of it until the cancellation email arrived.

// "We were replacing churned members with marketing spend. We didn't realise the same money spent on retention would have delivered 5x the return."

**8.4%**

MONTHLY CHURN RATE BEFORE  
RETENTION SYSTEM DEPLOYED

**200**

MEMBERS LOST EVERY MONTH  
– INVISIBLE UNTIL THEY LEFT

**3.1%**

NEW CHURN RATE – 90 DAYS  
AFTER SYSTEM DEPLOYED

**30 DAY**

EARLY WARNING LEAD TIME  
ACHIEVED BY RISK SCORING

# 2,400 MEMBERS. EVERY SIGNAL.

MONTHLY CHURN

## 3.1%

DOWN FROM 8.4% - 90 DAYS

REVENUE RETAINED

## £96K

ANNUALISED - CHURN REDUCTION

AT-RISK MEMBERS

## 312

FLAGGED FOR OUTREACH NOW

AVG MEMBERSHIP LTV

## £680

UP FROM £420 - LONGER TENURE

MONTHLY ACTIVE MEMBERS VS CHURN EVENTS - 12 MONTHS

RETENTION TREND

CHURN RISK DISTRIBUTION - ALL ACTIVE MEMBERS

VISIT FREQUENCY - PRE-CHURN PATTERN (LAST 8 WEEKS)

AT-RISK MEMBER REGISTER - CHURN PROBABILITY SCORE

OUTREACH PRIORITY LIST

Member ID	Site	Membership	Monthly Fee	Visits (Last 30d)	Visits (Prior 30d)	Visit Drop %	Churn Risk	Action
IR-00284	Shoreditch	Premium	£65	1	14	-93%	CRITICAL	CALL NOW
IR-00819	Hackney	Standard	£42	2	10	-80%	HIGH	CALL NOW
IR-01102	Dalston	Premium	£65	3	12	-75%	HIGH	FREE CLASS
IR-00562	Shoreditch	Standard	£42	4	11	-64%	MEDIUM	FREE CLASS
IR-00391	Hackney	Premium	£65	6	14	-57%	MEDIUM	FREE CLASS
IR-00748	Dalston	Premium	£65	10	16	-38%	LOW	MONITOR
IR-01240	Shoreditch	Standard	£42	12	14	-14%	MINIMAL	ENGAGED

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// 03 - PARETO ANALYSIS

# ONE SIGNAL. PREDICTS EVERYTHING.

The data analysis produced one extraordinarily clear finding: visit frequency drop in weeks 3-5 of a declining pattern predicted cancellation in the following 30 days with 84% accuracy. Members who dropped from 3+ visits per week to fewer than 1 visit per week over a 4-week period cancelled their membership within 30 days in 84% of cases. This single metric – trackable from the access control system – became the foundation of the entire retention programme.

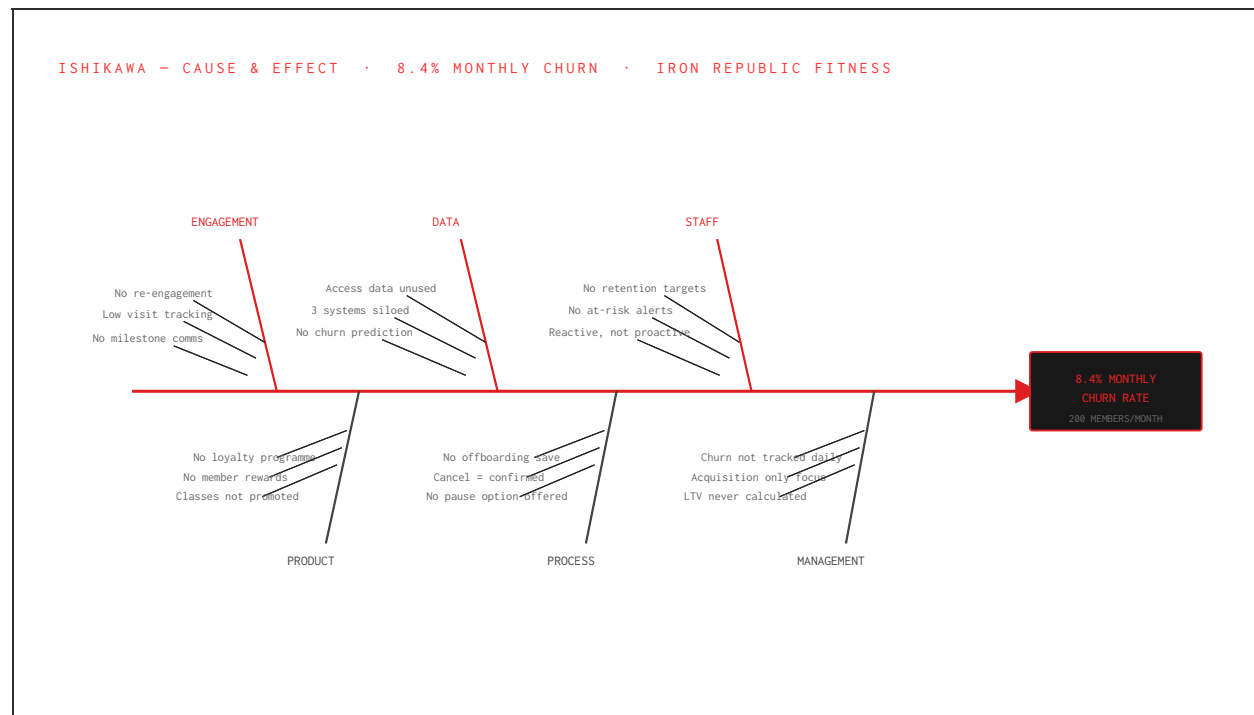
CHURN PREDICTOR PARETO - SIGNAL ACCURACY VS CANCELLATION

CHURN BY MEMBERSHIP TYPE & DURATION

REVENUE RETAINED - CHURN REDUCTION BY MONTH

# WHY WERE MEMBERS LEAVING WITHOUT WARNING?

A structured Ishikawa analysis was applied to identify why the gym was experiencing 8.4% monthly churn with zero early warning. Six causal categories were investigated: engagement, data, process, staff, product, and management.



# 3

Three separate data systems – access control, class booking, and payments – with zero integration. A member's complete engagement picture required manual reconciliation across all three. Nobody had ever done it for more than spot checks. The dashboard did it automatically, daily, for all 2,400 members.

ROOT CAUSE // ENGAGEMENT

# 0

Zero re-engagement outreach existed for members showing declining visit patterns. The gym had no process, no trigger, and no owner for member retention. The only contact a disengaging member received was the gym's monthly newsletter – sent equally to everyone regardless of engagement level.

ROOT CAUSE // MANAGEMENT

# LTV

Lifetime value had never been calculated. Management was focused entirely on new member acquisition – measuring cost-per-acquisition but never measuring retention ROI. Once the dashboard showed that retaining one churned member was worth £680 in LTV vs £120 in acquisition cost, the strategy changed immediately.

// 05 - KEY FINDINGS

## WHAT THE DATA PROVED

FINDING 01

# 84%

Accuracy of visit-drop churn prediction. Members dropping from 3+ weekly visits to <1 per week over 4 weeks cancelled within 30 days in 84% of cases. This became the core trigger for the outreach programme – automatically generated by the dashboard every morning.

FINDING 02

# 010

# 312

At-risk members identified in the first week of deployment. 312 of 2,400 members – 13% of the base – were in active disengagement patterns. None had been contacted. The dashboard produced a prioritised call list within 10 minutes of going live.

FINDING 03

# £680

Average member lifetime value – calculated for the first time using membership duration and monthly fee data. The gym was spending £120 per new member acquisition. Retaining one at-risk member was worth 5.7x the cost of acquiring a replacement. The economics of retention vs acquisition became impossible to ignore.

FINDING 04

# MO.1

Members in their first month had the highest churn rate at 22% – nearly three times the average. New members were being onboarded, handed a fob, and left to find their own routine. A structured 30-day onboarding check-in programme was launched using the dashboard's new-member cohort filter.

FINDING 05

# 68%

Of at-risk members contacted within 48 hours of the outreach programme launching agreed to continue their membership – many accepting a free personal training session or a 2-week membership pause as an alternative to cancellation. The save rate made the dashboard pay for itself in week one.

RECOMMENDED ACTIONS

# 4

1) Daily at-risk dashboard review by site managers. 2) 30-day onboarding check-in call for all new members. 3) Offer membership pause before cancellation. 4) Free class as re-engagement tool for >75% visit drop. Annual revenue impact: £96,000+ retained. Payback: <1 week.

// 06 - DELIVERED RESULTS

# NUMBERS THAT

# HIT HARD

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**8.4 → 3.1%**

Monthly churn rate reduction across all three sites in 90 days

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**£96K**

Annual revenue retained from churn reduction – tracked per site in the dashboard

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**312**

At-risk members identified on day one of deployment – zero previously on any outreach list

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**84%**

Churn prediction accuracy using visit frequency drop signal – 30 days early warning

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**68%**

Save rate on at-risk outreach – members who stayed when contacted before they cancelled

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**5.7×**

Return on retention vs acquisition – £680 LTV retained vs £120 cost to replace

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WINN

The member retention dashboard gave Iron Republic's site managers a tool they could use every single morning – a prioritised list of which members to call, why, and what to offer. The result was a culture shift from reactive cancellation processing to proactive

member relationship management.

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// "We went from finding out members had left to knowing they might leave 30 days before they did. That's an entirely different business."
```

```
// 07 - TECHNICAL BUILD
```

## THREE SYSTEMS. ONE DASHBOARD.

### CHURN PREDICTION LOGIC

```
# Merge access + booking + payment data visits = pd.read_csv('access_log.csv') classes = pd.read_csv('class_bookings.csv')
payments = pd.read_csv('payment_log.csv') # Visit frequency - current vs prior 30 days v_now = visits[visits.date >=
cutoff_now].groupby('member_id').size() v_prev = visits[visits.date < cutoff_now].groupby('member_id').size() drop_pct =
(1 - v_now / v_prev) * 100 # Churn risk score def risk(drop, payments_ok): if drop > 75 or not payments_ok: return
'CRITICAL' elif drop > 50: return 'HIGH' elif drop > 30: return 'MEDIUM' else: return 'LOW'
```

### SYSTEM FLOW

#### [DATA IN]

↓ Access control · Class bookings · Payment platform

#### [UNIFY]

↓ pandas merge on member\_id · daily refresh

#### [SCORE]

↓ Visit drop % · payment status · tenure · class use

#### [PRIORITY LIST]

↓ CRITICAL / HIGH / MEDIUM - recommended action

#### [DASHBOARD]

↓ Streamlit · Plotly · 3-site view · KPIs · alerts

Python 3.11

pandas

Streamlit

Plotly

Churn Prediction

Visit Frequency Analysis

LTV Calculation

Risk Scoring

Member Segmentation

Payment Monitoring

Priority Outreach List

Daily Alerts

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# UMER // AI & AUTOMATION ENGINEER

FITNESS · RETENTION ANALYTICS · PYTHON DASHBOARDS · CHURN PREDICTION  
STAFFORD, VA · REMOTE WORLDWIDE · UPWORK · VOXSCALESTUDIOS.COM

 AVAILABLE FOR PROJECTS

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