

Case Study Portfolio

Client Profile and Analysis -

My client was a 50 year old female who was a complete novice to exercise and had a predominantly sedentary lifestyle. She works a desk-based job, spending most of her day seated and moving between meetings. Outside of work she tended to remain inactive, often spending her evenings sitting and watching television. Despite this, the client explained that she occasionally goes out walking and had taken part in yoga classes in the past, with hope to join again. She had also previously completed a hike up Yr Wyddfa, this suggested that she had some level of functional endurance, however it was not reflective of her current fitness . During the consultation she explained that her main goals were to improve her overall fitness, lose a bit of weight, and gradually build up to being able to jog. These goals meant that the programme needed to be well-balanced, combining both cardiovascular and resistance training, while also being realistic for someone at her starting level. From the initial consultation it was clear that her baseline fitness, both cardiovascular and muscular were quite low due to her sedentary routine. A PAR-Q form (Physical Activity readiness Questionnaire) was completed during the consultation and did not highlight any major health concerns that would prevent my client from exercising. However, she did mention a pre-existing issue with her shoulder joint. This was something that needed to be considered whilst planning her programme, particularly when choosing upper-body exercises, ensuring movements would not cause discomfort or make the issue worse. Basic baseline measurements were also taken, including blood pressure, height, and weight. Checking blood pressure helped to identify any potential cardiovascular risks and ensured it was safe for my client take part. Height and weight were recorded to provide a clear starting point for tracking progress and goals. Overall, the consultation and assessments helped create a clear picture of my clients starting point, allowing for a safe and tailored exercise programme to be developed around her goals.

Programme Design -

I designed this 8-week programme to provide a structured approach to help my client improving fitness, supporting weight loss, and helping to gradually work towards light jogging. As my client was a complete beginner with below-average fitness levels and very little regular activity beyond occasional walking, it was important to keep everything simple, safe, and realistic. I focused on gradual progression so my client wouldn't feel overwhelmed. This approach helped build confidence in the gym environment while also helping lower the risk of injury and preventing loss of motivation. I wanted the programme to start with a steady introduction in order to

achieve my clients goals. Research supports this method, as findings from Svensen et al. (2025) show that low-impact resistance training using simple exercises at a moderate intensity can significantly improve strength, balance, flexibility, and lean muscle mass in women aged 40–60. This supports my decision to include beginner-friendly exercises like the leg press, seated row, glute bridges, and bodyweight movements throughout the programme.

The client's main goal was to lose weight, so the programme combined cardiovascular training with full-body resistance exercises to help increase overall calorie burn. The cardiovascular element followed a gradual paced structure to keep things manageable. In Week 1, we focused on interval walking to build a basic level of fitness. From Weeks 2 to 4, both the intensity and duration of walking were increased. By Week 5, light jogging intervals were introduced, and these were slowly built up in both length and duration during Weeks 6 and 7. By Week 8 my client was close to jogging continuously. Breaking it down this way made the progression feel realistic and achievable, rather than overwhelming. This approach is supported by research from Izquierdo et al., (2025) which shows that gradually increasing the intensity and duration of aerobic exercise can improve cardiovascular fitness and overall functional ability. It was particularly suitable for my client, as it reduces stress on the joints and helps create a routine that is more sustainable long term.

For the resistance training part of the programme, I chose a full-body approach. This suited the client's lifestyle and recovery ability much better than a split routine, as it allowed her to train effectively without needing to be in the gym too frequently. It also meant she could recover properly between sessions, which is especially important for a beginner. I designed the programme to target all major muscle groups in each session. This aligns with current guidelines, which suggest that training the whole body at least twice per week leads to the better improvements in strength, endurance, balance, and overall physical function (Currier et al., 2026). When choosing exercises for the programme, I made sure to include movements that covered the seven key functional patterns such as, squat, hinge, lunge, push, pull, rotation, and gait. This helped make the programme more practical and relevant to everyday life, rather than just focusing on gym-based movements. I also included weight-bearing exercises such as the leg press, and sit-to-stand. These were particularly important given the client's age and sex, as they help support bone health. Research has shown that exercise can improve bone mineral density, especially in areas like the hip and spine in postmenopausal women (Mohebbi et al.2023). Progressive resistance training has been shown to increase muscle mass and strength while also supporting overall bone health, helping to reduce age-related decline (Hong., 2018).

The programme was designed with a clear and gradual progression in both volume and intensity, so the client could build confidence and improve without feeling overwhelmed. In the first few weeks (Weeks 1–3), the client completed 2 sets per exercise. This gave her time to focus on learning and improving technique, improving control of each movement, and getting comfortable with the exercises, all while avoiding fatigue or severe soreness (DOMS), which is especially important for beginners.

From Week 4, the programme increased to 3 sets per exercise. This small change raised the training volume, allowing my client to continue making progress without a sudden jump in difficulty. This approach is supported by research from Schoenfeld et al.,(2021) which shows that moderate repetition ranges (around 8–12 reps) are effective for improving muscle development in beginners. The research also suggests that performing 1–3 sets per exercise is appropriate at this level, with higher volumes such as 3 sets, showing greater improvements in strength overtime . Overall, this progression reflects the principle of progressive overload by pushing the client enough and placing demands on the body to keep improving, in a way that was safe and manageable.

Overall, the I feel as though the programme followed a clear and structured progression of technique, volume, and intensity, while allowing my client to gradually adapt physically and mentally to the changes throughout the plan. The steady increase in cardiovascular intensity and the resistance training volume helped my client to continue improving her fitness, strength, and endurance. As we got to Week 8 my client had progressed from being largely inactive and sedentary to being able to complete light jogging intervals and being close to continuous running, showing the effectiveness of the programme and the positive impact of using a structured progression plan.

Weeks	Focus
1-2	Technique, adaptation, basic fitness.
3-4	Build consistency, introduce volume.
5-6	Increase intensity, introduce jogging.
7-8	Improve endurance, near continuous jogging.

Reflection -

In Week 1, the initial session focused on introducing my client to the gym environment and taking a very gradual and supportive approach, particularly due to her being a complete beginner and her pre-existing shoulder issue. The session was deliberately kept at a low intensity, allowing her to become familiar with the exercises and build confidence. A key challenge occurred during the chest press machine exercise. Despite

selecting the lightest weight on the machine, the client experienced discomfort and was unable to complete the movement. I had anticipated potential limitations and prepared a backup exercise such as a dumbbell bench press, aiming to replicate the pushing movement in a more controlled manner. However even with the lightest dumbbells, my client continued to experience pain. I was put in a position where I needed to think quickly and adapt the session appropriately. I then chose a resistance band chest press, which significantly reduced the load on the shoulder joint. This adjustment proved to be successful, as the client was able to complete the exercise without any pain or discomfort. This experience showed the importance of having multiple exercise options available and being adaptable in real time to ensure the client can still achieve the intended movement safely and get the full benefit from the exercise.

Moving into Week 3, the intention was to begin increasing the intensity slightly in line with the programme's structure. However, during the warm up my client explained that she was feeling quite physically and mentally fatigued due to external stress. With this, I prioritised the client's experience and well-being rather than sticking strictly to the plan for the week. Instead of increasing intensity, I chose to repeat the Week 2 session and maintaining the same number of sets and avoiding any increase in resistance. This decision ensured the session remained manageable and enjoyable for the client. As a result, my client completed the session comfortably and maintained a positive attitude towards exercise. This highlighted the importance of listening to client feedback and adapting sessions accordingly, as pushing for progression in this situation could have led to a lack of motivation to return and negative associations with the gym.

In Week 4, I implemented the next planned progression by increasing the training volume from 2 sets to 3 sets, introducing my client to a more structured form of overload. I also encouraged my client where appropriate, to consider slightly increasing the resistance on certain exercises, but only if she was feeling confident and comfortable doing so. This session was successful due to the use of clear communication and ongoing monitoring, ensuring my client felt supported throughout. I maintained regular check-ins during the exercises to check comfort levels, particularly regarding her shoulder, and provided positive reinforcement to build confidence. My client responded well to this progression, completing the additional set and in some cases increasing resistance. I feel as though this proved that the progression was appropriate and well-timed. Overall, this session showed me the importance of strong communication and motivation, as it's able to create a supportive environment where the client felt confident to challenge herself safely.

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Appendices -

PAR- Q Form


Polytechnic of Wales
University of Wales
Tafelberg, Cardiff

PAR-Q and Informed Consent Form

Personal details	
First Name	Sarah
Last Name	McIntyre
Student Number	X
Course	X
Year	X

Please answer the following questions fully and truthfully as it may affect your safety whilst exercising.

	YES	NO
Has a doctor told you that you have a heart condition AND must seek medical advice before participating in regular exercise?		X
Do you feel a pain in your chest when you perform physical activity?		X
Have you ever had a chest pain when not doing physical activity?		X
Do you lose your balance due to dizziness or do you ever lose consciousness?		X
Do you have a bone or joint condition that could be made worse through physical activity?	X	
Are you currently taking any medication for a heart problem?		X
Do you take any other medications on a regular basis?		X
Have you had recent surgery?		X
Do you have any chronic health conditions such as asthma, diabetes?		X
Women Only: Are you pregnant or have you given birth in the last 6 months?		X

If you have answered YES to any of these then please give details below:
Possibly linked to Menopause → Stiffness/lache in joints (lower back).

If you have answered YES to one or more of these questions, then it would be advisable to talk to your doctor before starting exercise. Please comment below if you have any further information regarding your health, physical or otherwise, that has not been covered by the above questions [i.e., past, or present injuries]:
N/A

Declaration, Terms & Conditions

I have read, understood, and completed this questionnaire to the best of my knowledge and can confirm that the information I have provided is correct. I understand that I am expected to participate in physical activity and exercise as this is a necessary element of the degree. This may include exercise to exhaustion and maximal efforts. I am aware that participation in these activities involves the risk of injury. I agree to work within the guidelines of the laboratory and the parameter of any test protocol when present in the laboratory. I understand that unacceptable or dangerous behaviour may result in my removal from the facilities. I agree to inform a member of staff in the event of any change to either my personal or medical details.

Signature [Signature] Date 5 2 26

Consultation Form

Lifestyle assessment and client profile

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Learner's name: _____ Date: _____

Client's name	Age	Gender
Sarah McIntyre	50	F

Description of lifestyle, to include: family, occupation, hobbies etc.

- Currently no PA participation.
- Desk job (sat down all day sedentary).
- watching tv.
- Going for walks.

Description of present exercise and physical activity levels (apply FITT where appropriate)	Description of past exercise and physical activity levels (apply FITT where appropriate)
	- No past / previous PA experience - Climbed snowdown previously. - Yoga + pilates classes.

Clients activity likes and dislikes	
Likes:	Dislikes:
Brisk walking ↳ Build up to running	
Client PAR-Q/PAR-Q+ completed and informed consent explained: ☒ YES ☐ NO	
Did the client answer YES to any PAR-Q/par-q+ questions? ☒ YES ☐ NO	
Analysis of PAR-Q/PAR-Q+ response(s) and actions if applicable	
Results from tests (physical measurements/assessments (as appropriate to client and goals) – examples only given – not prescriptive – appropriate to client needs and goals)	
Test	Results
Blood pressure	116/87
Anthropometrics (tick method):	
height and weight	165.5 cm + 67 kg
BMI	
waist circumference	
waist to hip ratio	

Functional ability – list any areas of functional fitness (relevant to client lifestyle and goals) that need applying to the programme • Being aware of joint pain. • lower back + hip pain.
Posture and alignment – list any postural/alignment issues your client might have and how these will be addressed in the programme • Slight hump in the back.
Client's needs - Primary goals → Get fitter, prevent osteoporosis, loose a bit of weight. - 2x a week = 45-1 hour - Start with full program - adapt if not suitable. - Improve posture.

Client's readiness to participate (list the client's general feelings towards starting a programme of exercise and any possible obstacles)

- Excited
- Anxious over pace.

SMART goals: Indicate below if another party other than the personal trainer and client is required for goal setting (please give a reason for their involvement)

Short-term (3 months)	Agreed review dates:
Loose fat (stone $\frac{1}{2}$)	50
Get fitter $\rightarrow$ run a couple miles comfortably.	

Example of Program Card (Week 5)

Gym programme card

Client Name:..... Sarah McIntyre.....

Exercise Goals:

- Lose Weight
- Improve Fitness
- Progress Running

Warm up

CV Pulse raiser (if required)	Equipment and duration	Level/speed	RPE/HR	Adaptation(s) or alternatives
Treadmill	2-6minutes	5.2km - 0-2Minutes 6.0km - 2-4Minutes 6.5km - 4-6Minutes	5-7	Stationary Bike Intervals

Activation and Mobilisation Activities: Describe/draw activities in the space below

Marching with arm swings (forwards and backwards) - 60 second each side
Resistance band pull aparts - 12 reps
Step back lunges (bodyweight) - 8 each leg
Standing Hip Swings - 10 each leg
Bodyweight Box Squats - 12 reps
Standing torso rotations - 10 reps each side

Cardiovascular training

Equipment and approach (e.g. treadmill – continuous; bike – intervals)	Programme timings	Level/speed	RPE/HR	Adaptation(s) or alternatives
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Treadmill - Brisk Walk	1 minute	6km/h brisk	5-6/10	Stationary Bike Intervals
Light Jog	1 minute	7.5km		
Repeating x5 rounds				

Resistance training

Exercise/machine	Resistance	Reps	Sets	Rest	Adaptation(s) or alternatives
Leg Press		12	3	60-90s	Box Squat
Supported DB RDLs		10	3	60-90s	Cable Pull-Through
Seated Chest Press Machine		12	3	60-90s	Incline Wall Push ups
Seated Row Machine		12	3	60-90s	Resistance Band Row
Static Split Squat		10	3	60-90s	Step-ups
Dead Bug		8	3	60-90s	Bird Dog
Glute Bridge		12	3	60-90s	Ball Bridge
Sit to Stand Overhead DB Hold		10	3	60-90s	Goblet Squat
Body weight exercise			Sets/reps/rest		
Heel Taps			3 Sets	10 Reps	60s Rest

Cool down/flexibility

Hip Flexor Stretch

Hamstring Stretch

Glute Stretch

Chest Stretch

Upper Back Stretch

Calf Stretch

Cool down	
CV machine (if required)	Time and intensity range

Treadmill	Slow walk 3 minutes at 4km/h RPE 2-3
Post-workout stretches (circle as applicable) - indicate which stretches are maintenance (M) and which are developmental (D)	