# TrainHub Project Report

## 1. Introduction

This report outlines the development process for TrainHub, a responsive web application for a fictional fitness business. The primary goal was to create a visually appealing and functional website that allows users to view fitness equipment, see detailed product information, and make reservations. The project leverages HTML5, CSS3, JavaScript, and jQuery, with responsiveness optimized for desktop, tablet, and mobile devices.

## 2. Approach to the Problem

We started by breaking the requirements into manageable tasks. Each group member was assigned roles based on their strengths one handled layout and styling, while the other managed functionality and interactions.

Features Developed:  
- Homepage introducing the fitness brand  
- About page outlining the business mission  
- Products page listing available equipment  
- Individual product detail pages with:  
 - Multiple images  
 - Embedded videos  
 - Key information: product name, product description, price, rating, features,   
 - Reservation form (with JS-based submission and confirmation)

## 3. Site Map

TrainHub/  
├── index.html  
├── about.html  
├── product.html  
├── Product-Pages/  
│ ├── product1.html  
│ ├── product2.html  
│ └── product3.html  
├── css/  
├── js/  
├── images/

## 4. Design/Layout Decisions

We adopted a mobile-first design strategy, ensuring that elements stack naturally for smaller screens, then scale up for tablets and desktops using media queries.

Layout Overview:  
- Header/Nav: Responsive, collapsible nav for small screens using jQuery toggle.  
- Home Page: Full-width hero image, short intro, and CTA button linking to products page.  
- About Page: Single column layout on both desktop and mobile.  
- Products Page: Product cards using flexbox/grid, each with a 'View Product' button.  
- Individual Product Pages:  
 - Carousel-style image display (optional enhancement)  
 - Embedded video  
 - Product details  
 - Reservation form with client-side validation (JS only)

## 5. Responsive Design Techniques

To ensure responsiveness:  
- Used CSS Flexbox and Grid layouts  
- Applied media queries for breakpoints (e.g., 577, 768px, 1024px)  
- Scaled font sizes and padding for readability on smaller screens  
- Utilized percentage widths and max-width containers for layout flexibility  
- Tested on Chrome DevTools and real mobile devices

## 6. Use of jQuery and JavaScript

Implemented JavaScript/jQuery for:  
- Navigation Toggle  
- Reservation Form validation and success message  
- Product Filtering by name   
- Image/Video switching in product galleries

## 7. Testing and Quality Assurance

Tested across:  
- Desktop browsers (Chrome, Edge)  
- Tablets (iPad emulator)  
- Mobile (Android and iPhone simulators + physical devices)  
Resolved:  
- Button alignment issues on small screens  
- Form field stretching  
- Video scaling issues

## 8. Code Quality and Comments

All HTML, CSS, and JavaScript files include comments. Files are structured clearly with consistent naming conventions.

## Conclusion

TrainHub meets the assignment requirements, with full responsiveness, interactivity, and a user-friendly interface. It demonstrates good practices in modern web development using frontend technologies.

# Contribution Form

Student Name: Sheikh

Student Number: [Your Number]

Group Member 1: Sheikh

Group Member 2: [Teammate's Name]

Contribution to the project:

I contributed to the development of the website structure and functionality. I was responsible for setting up the HTML pages (Home, About, Products), creating the folder structure, and implementing the JavaScript logic including mobile navbar functionality, product filtering with jQuery, gallery media switching (images/videos), and form validation for the reservation system. I also assisted in ensuring that all pages were responsive across desktop, tablet, and mobile devices using CSS media queries. My partner focused on layout design, styling, and testing. We collaborated on planning, problem-solving, and ensuring code consistency. All work was completed jointly using version control and regular discussion.