WSUK – National Finals Competition

Web Development

2025

MODULE A
DESIGN IMPLEMENTATION

Val Adamescu
Lewis Newton
Mark Kiss

Contents

Introduction

*In this module, you are required to develop a web page following **a set of client requirements**. You can write your solution using front-end technologies, namely HTML, CSS and JavaScript. You can also use any of the provided frameworks, should you wish.*

*The test project can be completed without using any framework; it is your decision whether you use one. If you do use any of the frameworks, the submitted solution **must be functional as-is**; no attempts will be made by the assessors to fix or manipulate the code in any way.*

If you are using any framework, you must provide a basic read.me of the initialisation (e.g. `npm run dev`, `npm start` etc) or any other instruction to run the project.

NOTE: *The specific submission/upload requirements of the test project are provided separately.*

You have three (3) hours to complete this task. You need to submit it before time runs out. No additional time will be given for submission.

Requirements

Following the highly successful launch of their promotional webpage, **Spark Studios** has experienced a surge in client inquiries and industry recognition. The initial campaign, which you helped bring to life, successfully generated the online buzz they needed to establish their brand.

Now, with a growing list of potential clients and their official business launch complete, the single promotional page is no longer enough. **Spark Studios** needs to expand its digital footprint to convert this new attention into long-term partnerships. They require a comprehensive, multisection website to showcase their diverse portfolio, detail their range of services, and solidify their position as a leading creative agency in Wales.

A senior designer has already crafted a complete, high-fidelity visual mockup for the main company website. Your role, as a trusted developer, has been secured for this critical next phase. You are commissioned to transform the designer's vision into a fully functional, responsive, and polished website that will serve as the central hub for **Spark Studios'** online presence.

All design layouts and samples of required animations and behaviours are available in *samples* folder.

General Styling and Resources

The web page has a favicon that must be shown in the tab when accessing the web page. When navigating to different sections of the page, such as when a user clicks on a navigation menu item, the scrolling should be smooth.

The web page has been designed for desktop and mobile versions. The main content container should have a maximum width of, 1200px. You will also need to make specific adjustments for tablet screens (768px) and mobile screens (430px).

All the texts used in the design are provided in *assets/texts.txt* (do not write long texts, just copy/paste from provided file); colours used in the design are provided in *patterns/css/pattern.css*.

The font family to be used was provided in assets/fonts, all related images are in assets/media and icons are in assets/icons.

Usability & Accessibility

Your goal is to deliver an outstanding and accessible user experience. Your submission must satisfy the minimum requirements for WCAG (Web Content Accessibility Guidelines) Level AA. This requires careful attention to your HTML mark-up to ensure it is semantic and fully accessible to everyone, including screen reader users.

Assessment of your work will be conducted using a range of industry-standard tools available in your browser. The evaluation will be performed with **Developer Tools**, **axeDevTools**, **WAVE Evaluation Tool**, and the **Lighthouse Accessibility Audit**. You are strongly encouraged to use these same tools to test and validate your submission throughout the development process.

Code Quality & Organisation

You are required to demonstrate your knowledge of modern HTML, CSS, and JavaScript by writing clean, modular code that is easy to understand. All HTML and CSS code should be free of errors and valid syntaxes as per W3C validations. A well-organised project is expected, so ensure you use a logical folder and file structure. Your work should also be properly formatted and include sensible comments where they are helpful to explain your logic.

Sections

The page is divided into the following sections:

- Header/Navigation
- Hero
- About
- Portfolio
- Value & CTA
- Clients
- Info & Location
- Social
- Footer

⭐ HEADER / NAVIGATION

The header contains the logo and navigation menu. The on load the background is *rgba(10,15,28,0.50)* and on nav scrolled is *rgba(10,15,28,0.90)*.

When clicking on a navigation menu item, the user must be navigated to the corresponding section.

On smaller screens (=<768px), the header navigation must be hidden and a hamburger menu to be displayed to make mobile navigation easier

See samples *1920px-desktop-full.mp4; nav-hero.mp4* and *mobile/* folder.
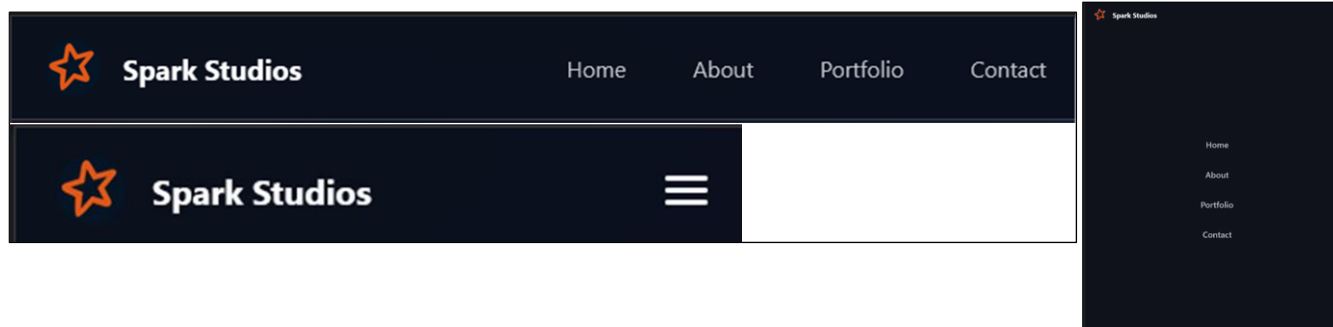
⭐ HERO

The background is a full-width, looping video (*assets/media/hero-bg-video.mp4*) that plays automatically on mute. A semi-transparent overlay must be placed on top of the video to ensure text legibility. This overlay must be styled using a *linear-gradient* set to *135deg*, transitioning from the *var(--overlay)* variable to *rgba(30, 39, 73, 0.8)*. The section must have vertical padding of 180px on the top and bottom.

The main headline text has a font-size of *72px* on desktop. On page load, it must animate into view using a "fade and slide up" effect, and the "Made in Wales" has a subtle pulse effect. The buttons have a subtle hovering glass effect and will scroll to "About" and respectively "Portfolio" sections when clicked.

The stats counter has a quick count up on page load as *Projects Completed: 150, Client Satisfaction: 98 and Years Experience: 5*

The right side of the hero features a rotation banner for the main services. The full animation logic for this banner is provided in *patterns/js/animated-words.js*. You must implement the required HTML structure, consisting of *.animated-word* and *.word-description* elements with corresponding attributes, to allow the script to cycle through the services correctly. You must implement the required HTML/CSS structure, consisting of *.animated-word* and *.word-description* elements with corresponding attributes, to allow the script to cycle through the services correctly.

NOTE: *You can modify the IDs, and JS if you wish so, but the functionality must be preserved.*

The icons used are *fa-star*, *fa-arrow-right*, *fa-images*.

See samples *1920px-desktop-full.mp4* and *nav-hero.mp4* for full effects and behaviours.

⭐ ABOUT

This section's content is centred within the *1200px* main container and have *100px* of padding on the top and bottom.

The two service items are displayed in a two-column layout and there are hover effects over the images, badges and buttons.

Both images have a hover effect where they smoothly scale to *1.02 (transform: scale(1.02);)* over a **0.3s** transition to create a subtle zoom effect and an icon is displayed.

The badges and buttons background have a smooth **0.3s** L > R transition to the **primary colour**, and its text must turn white. Both buttons will navigate to the CTA section.

The icons used are *fa-camera*, *fa-palette*, *fa-arrow-right*.

See samples *1920px-desktop-full.mp4*, *what-we-create.mp4* and *all-hoover-effects.mp4* for full effects and behaviours.
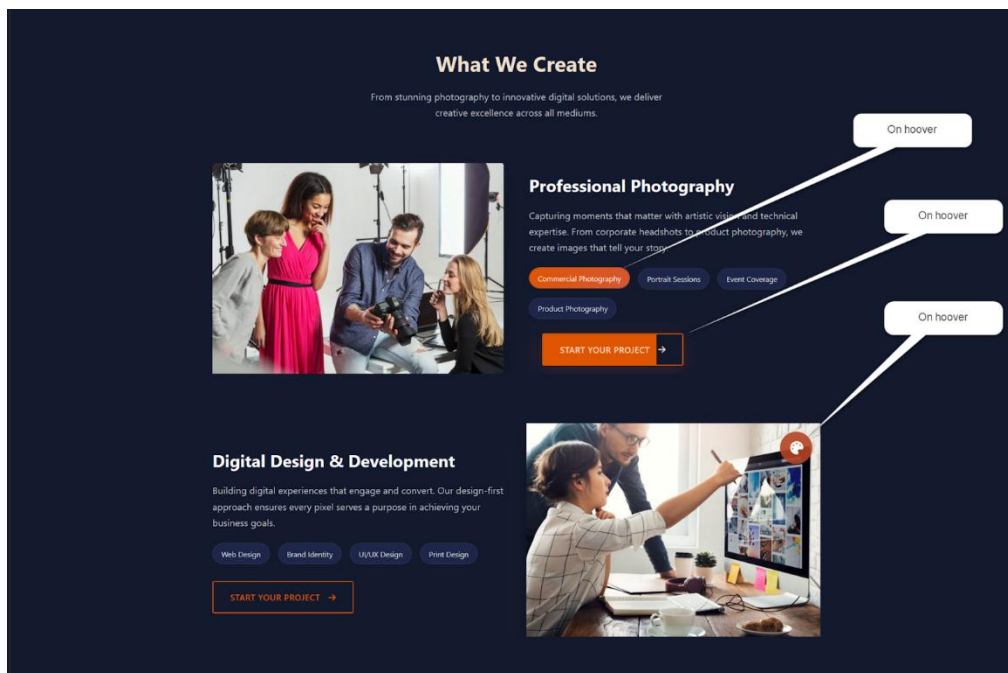
⭐ PORTFOLIO

The section has a background image element (***img/portfolio-bg.jpg***) that is full width. The background has a continuous, 20-second, infinite animation. The animation should create a slow, drifting effect by subtly zooming and panning the image in various directions throughout its cycle (using *@keyframes*). A separate overlay element using the *var(--overlay)* background is placed on top of the image.

Portfolio section contains a dynamic search bar along with a category filtering. The ***filtering and search*** function is available in *patterns/js/search.js*, and you need to implement it into the HTML page and apply styles. (*see samples/portfolio.mp4 for full functionality and behaviour*)

The search.js targets (you can change the IDs/classes if you wish so):

> *#portfolioSearch* for the search input
> *#portfolioGrid* for displaying results
> *.portfolio-filters* for filter buttons

The portfolio items are displayed in a responsive 3-column grid with a 30px gap between each item, in a masonry layout. Each item in the grid consists of a project image (*media/portfolio/{folder}*). On hover, a subtle zoom effect is present (*there is no larger imagine preview*).

If the search & filter is correctly implemented, the '***VIEW MORE***' button will load images in batches of 8.

See samples *portfolio.mp4* and *smoke-effect.mp4* for full effects and behaviours.
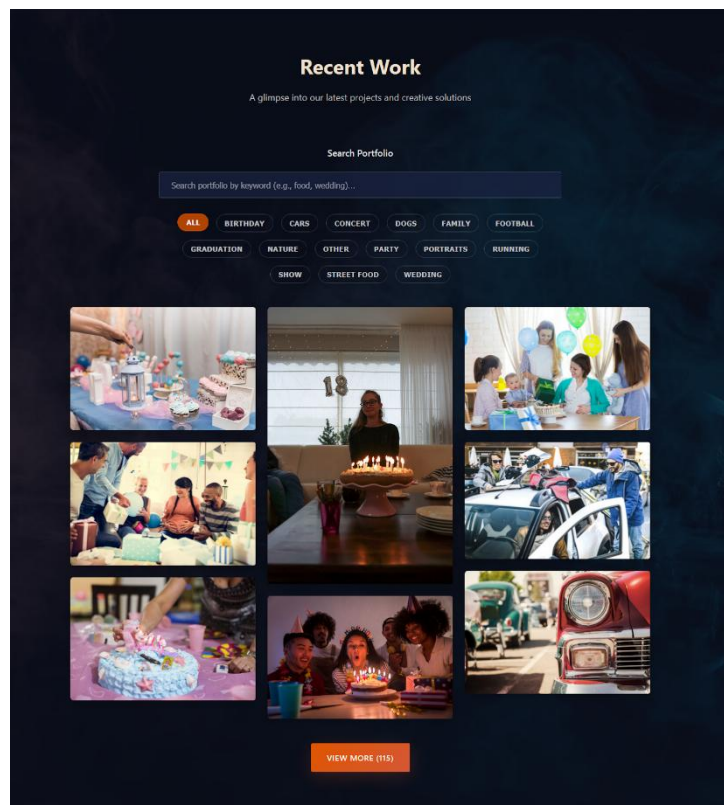
⭐ VALUE & CTA

The section is divided into two distinct parts, "**Why Spark Studios?**" and the final "**Ready to Ignite...**" call to action with `dark-3` background.

The first part is a two-column grid featuring three value propositions. Each proposition has an icon (`fa-award`, `fa-clock`, `fa-heart`) that must scale (`1.1`) and rotate (`5deg`) on hover. The accompanying team photo (`team-photo.jpg`) must have an animated "5+ Years" badge that uses the continuous **pulse** keyframe animation with dark-1 background and 2px border.

The second part (Ready to ignite...) has a background styled with a `linear-gradient`

```
background: linear-gradient(135deg, var(--dark-2) 0%, var(--dark-1) 50%, var(--dark-3) 100%);
```

and an animated **radial-gradient** pattern

```
radial-gradient(circle at 25% 25%, rgba(181, 68, 37, 0.1) 0%, transparent 50%),
radial-gradient(circle at 75% 75%, rgba(213, 87, 56, 0.1) 0%, transparent 50%);
```

that uses the **patternFloat** animation.

```
@keyframes patternFloat {
  0%,
  100% {
    transform: scale(1) rotate(0deg);
  }
  50% {
    transform: scale(1.1) rotate(2deg);
  }
}
```

The CALL NOW (`fa-phone`) and SEND EMAIL (`fa-envelope`) buttons are styled with **--gradient-primary** and on hover, they must lift upwards by **3px** and display a shine effect that wipes across the button.
The "Call Now" button must be implemented as a `tel:` link to initiate a phone call on compatible devices.

The "Send Email" button must trigger a modal. The modal must appear over a semi-transparent, blurred overlay. The overlay modal contains a complete form for sending a message, with full validation for all fields. When SEND MESSAGE is pressed, it is a simulation   of the network request of *2sc* where the text will show 'SENDING…' and after 2 seconds a success message will be shown.
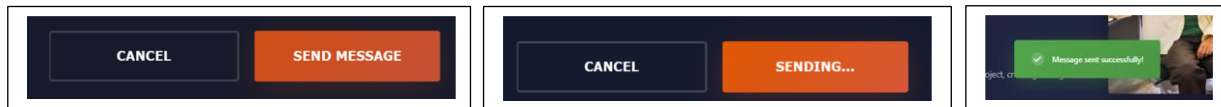
See samples *value-cta.mp4* for full effects and behaviours.
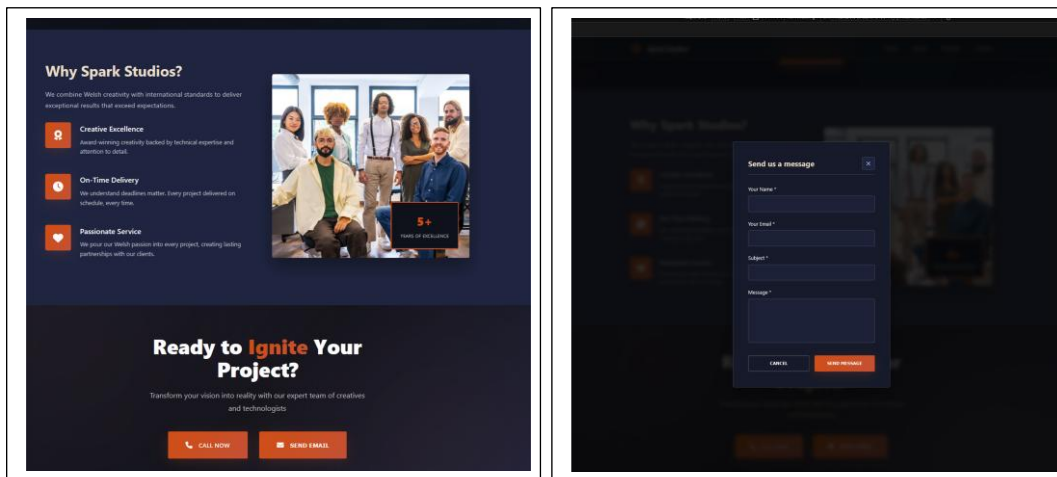
★ CLIENTS

The section's background colour is *var(--dark-2)*, and it must have vertical padding of *var(--space-xl)*.

It is featuring a full width, continuously scrolling carousel that extends beyond the main 1200px container. This effect is driven by the *infiniteScroll* keyframe animation, which should have a 30-second, linear, and infinite duration. The order of clients logos is not important but all 8 must be included. The full functionality for the infinite scroll is provided in patterns/js/carousel.js. Your task is to implement the required HTML/CSS structure for the script to function.

Each logo's container is *240px* wide by *160px* high and have a 1px border using *var(--border)*. The logo images inside must have a maximum size of *230px* by *140px*.

By default, all logos appear from left to right in monochrome by using filter: *grayscale(100%)*. On hover, the scroll will stop, the filter is removed to reveal the logo's full colour, and the entire logo container should lift upwards by 5px.

NOTE: *You can modify the IDs, and JS if you wish so, but the functionality must be preserved.*

See samples *clients.mp4* and *1920px-desktop-full.mp4* for full effects and behaviours.
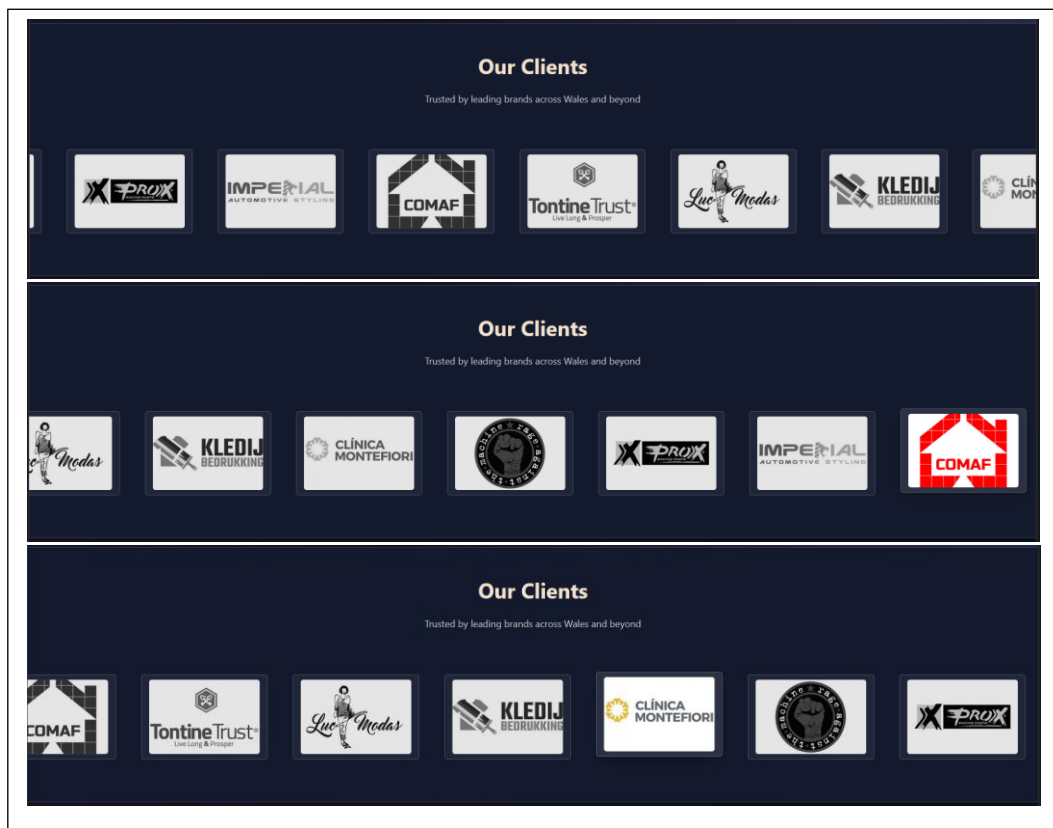
⭐ <u>INFO & LOCATION</u>

This section is divided into a two-column grid that collapses on screens *1024px* or smaller.

The left column contains the brand summary and a circular, *180px* brand photo styled with a *4px var(--primary)* border and a *box-shadow* that intensifies on hover.

The right column contains an interactive map module with a header and three control buttons for *Zoom In (+)*, *Zoom Out (-)*, and *Reset* (Home). The map is an imagine that will simulate a real interactive map (*assets/media/map.png*). The complete functionality for this map, including panning, zooming, and resetting, is provided in *patterns/js/map.js*. Your task is to implement the necessary HTML structure and apply the specific IDs that the script requires to work correctly.

You must create the following elements with their exact IDs:

- A container *<div>* with the ID *mapContainer*.
- An *<img>* for the map with the ID *mapImage*.
- Three *<button>* elements for the controls with the IDs *zoomIn*, *zoomOut*, and r*esetView*.

The module must be styled according to the design, including the header, control buttons with icons (*fa-map-marker-alt*, *fa-home*), and the location info box. When implemented correctly, the provided script will make the map fully interactive.

NOTE: *You can modify the IDs, and JS if you wish so, but the functionality must be preserved.*

See samples *info-location-social-footer.mp4* and *1920px-desktop-full.mp4* for full effects and behaviours.
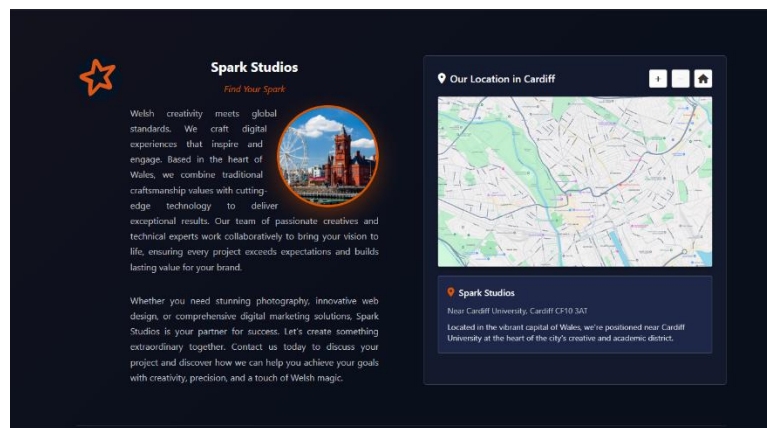
⭐ SOCIAL

This section contains a title and four circular social media links. On desktop, the links must be **80px** circles with a **5px** solid white border and a white brand icon.

On hover, the link must lift up and scale to 1.1 while a pseudo-element fades in, filling the circle with its platform-specific linear-gradient: Facebook (*#3b5998* to *#8b9dc3*), Instagram (*#f09433* to *#dc2743*), LinkedIn (*#0077b5* to *#00a0dc*), and X/Twitter (*#072c43* to *#000000*).

The links must responsively scale down to 50px on tablet screens (<= 768px) and 45px on smaller mobile screens (<= 480px).

The icons used are *fa-facebook-f*, *fa-instagram*, *fa-linkedin-in* and *fab fa-x-twitter*.

See samples *1920px-desktop-full.mp4*, *info-location-social-footer.mp4* or *all-hoover-effects.mp4* for full effects and behaviours.
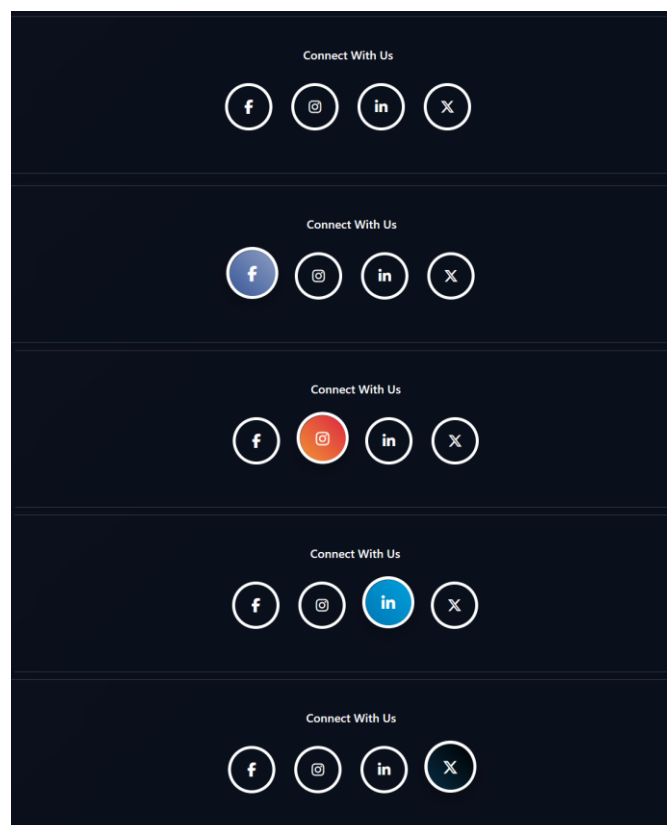
★ FOOTER & MODALS

The footer section contains the copyright notice where the year must be dynamically generated using JavaScript. The script must insert the current full year upon page load and to not be hard-coded.

The footer also includes three legal links for **`'Privacy Policy`**', '**`Terms of Service'`**, and '**`Cookie Policy'`**. Clicking any of these links must trigger its corresponding modal.

Each modal must appear over a semi-transparent, blurred page overlay that uses a `backdrop-filter: blur(5px);`.

The overlay must use the **`fadeIn`** animation and each modal must be closable via its header '×' button and a 'Close' button in its footer.

See samples **`1920px-desktop-full.mp4`** or **`modals.mp4`** for full effects and behaviours.
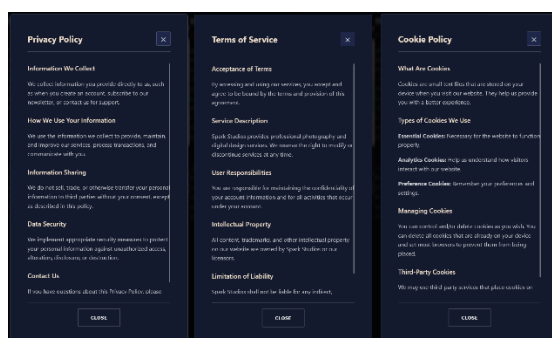
★ BACK TO TOP

A "**`Back to Top`**" button is implemented. It is hidden by default and only appear with a **`bounceIn`** animation after the user has scrolled more than **`50px`** down the page. The button must be permanently hidden on screens 768px or smaller.

The button is round with **`55px`** in diameter and fixed to the bottom-right of the viewport with a **`2rem`** offset from the edges. It must be styled with the **`var(--gradient-primary)`** background and contain a white chevron-up icon (**`fa-chevron-up`**). On hover, the button must lift upwards by **`3px`**.

See samples **`1920px-desktop-full.mp4`** or   for full effects and behaviours.

Media Files

Media files are provided in the *media* folder.

Unless otherwise stated, such as for the dynamic year in the footer, you must use the provided text exactly. You can use HTML entities in place of some characters, where relevant.

Samples files are provided in the *samples* folder.

General Guidance

Implement as many elements as you can within the allocated timeframe but aim to implement all sections.

Task Submission

*Ensure that the module is accessible through URL **ws{XX}.worldskills.uk/module-a** where XX is you station number.*

Marking Scheme Summary

SECTION	CRITERIA	TOTAL
A1	Layout	3
A2	Design Implementation	15
A3	Responsiveness	3
A4	Organisation	2
A5	Maintainability	2
	TOTAL ALLOCATED MARKS	**25**