

Web Design and Programming (7175)  
**Assessment 3**

**Submission date:** 23:59 Friday 10/10/2025 (Week 11)

**Type:** Individual assignment

**Total marks:** 45

**Submission:** A .zip file that contains all files in your web project. Submit this .zip file on the Canvas site of this unit.

**Topic:** Choose **one** theme for your site:

1. **AI in Healthcare:** AI-powered diagnostics, virtual health assistants, predictive analytics in medicine.
2. **AI in Education:** AI tutors, adaptive learning, plagiarism detection tools.
3. **AI in Creative Arts:** AI-generated art, music composition, creative writing tools.
4. **AI in Sustainability:** AI for climate prediction, energy optimisation, smart agriculture.

**Tasks:** Design and implement a **responsive** website for **your website** using the following:

1. **ASP.NET Core Web App (Model-View-Controller)** template in **Visual Studio 2022 (Community or Code)**.  
Language: **C#**.
2. **HTML5, CSS3, Bootstrap, Flex, Grid** and **media query** for **responsive web design**.
3. **JavaScript** for interactive website.

**Requirements:**

1. **Full-width layout web site:** the full-width layout takes up the entire space on the web page. **No** blank spaces on all sides and between HTML elements are seen.
2. **Web pages:**
  - Two webpages in **Views/Home/** folder: **Index (home page)** and **Contact**.
  - Five webpages in **Views/Allimages/** folder: **Create, Details, Delete, Edit** and **Index**. You will create them using a model named **Allimage** and **Entity Framework** (see this model class on the last page).
  - **\_Layout.cshtml:** This layout file provides HTML source of a web page, and common elements which are **head, menu (navigation)** and **footer** of this web site. This file is included in the ASP.NET Core Web App (Model-View-Controller) template.
  - **Register** and **Login** pages: These files are included in **ASP.NET Core Web App (Model-View-Controller)**.
  - **One additional creative page:** you will design and build one extra webpage of your own. Content and layout are entirely your choice, but it must:
    - Be responsive.
    - Use only external CSS and JavaScript.
    - Be linked from both the menu and the footer.
    - Keep a consistent look and feel with the rest of the site.
3. **Menu (Navigation) and Footer:** contain **hyperlinks** to **Index, Allimages** and **Contact** pages.
4. **Accessibility:**
  - **Visitor (user without logging in):** webpages in the **Views/Home/** folder, the **Register** page and **Login** page.
  - **Member (logged-in user without role):** webpages in the **Views/Home/** folder, the **Register** and **Login** pages, and the **Create** page in the **Views/Allimages/** folder.
  - **Admin (logged-in user with admin role):** all web pages in this website.
5. **Responsive design:** **Bootstrap 5, Flexbox** and **Grid** are used in this web design. **Chrome or Edge web browser** with **inspect** is used for testing this responsive design.
6. **CSS:** all CSS properties and values must be stored in an **external** style sheet file (**site.css**). More style sheet files are allowed; however, **internal style sheet (between <style> and </style>)** and **inline styles are not allowed**.

7. **JavaScript** must be stored in an **external** file (**site.js**). **Internal** JavaScript (between `<script>` and `</script>`) are not allowed.
8. **Handle all exceptions** that may occur at runtime (– 2 marks for each exception found). Make sure your web site provides the same display on the Chrome and Edge web browsers (– 2 marks if not the same).
9. **Screenshots with more requirements:** **A sample layout for a website with the theme Generative Artificial Intelligence (introducing generative AI tools and companies) has been provided here in this instructions. Your web design must follow the same layout and structure shown in the sample, but all media (images, videos, icons, etc.) must be your own choice.**
10. **Media must be sourced from copyright-free resources or created by you.**
11. **All sources must be credited in the Contact page.**
12. **Do not use the sample media shown in the provided layout.**

**The following text and images are only examples based on the theme *Generative Artificial Intelligence*.**

**When you build your own website, you must:**

- **Keep the same layout and interaction features (image display, text on hover, and clickable links).**
- **Replace all images with your own chosen media that fits your selected theme.**
- **Replace all text with your own researched descriptions, keeping similar length and level of detail to the examples below.**
- **Ensure all external links point to relevant websites of your chosen examples.**

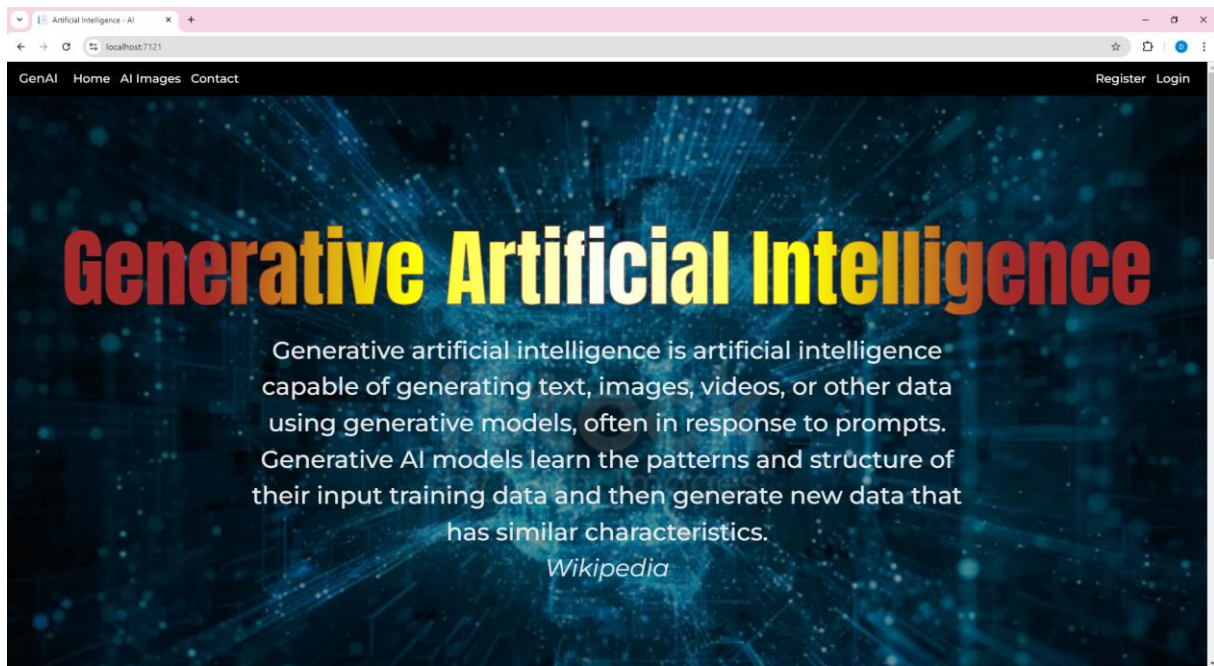
## **Home page (Views/Home/Index.cshtml)**

**Home page:** to introduce content of your website.

- Bootstrap 5, Flexbox, Grid and CSS3 media queries for responsive design,
- CSS3 **parallax scrolling** technique for **fixed** background images,
- CSS3 and JavaScript for mouse over and mouse out events,
- JavaScript to produce HTML5 elements, and
- HTML5 **anchor** hyperlinks.

Below are the layouts required for this page on Google Chrome browser

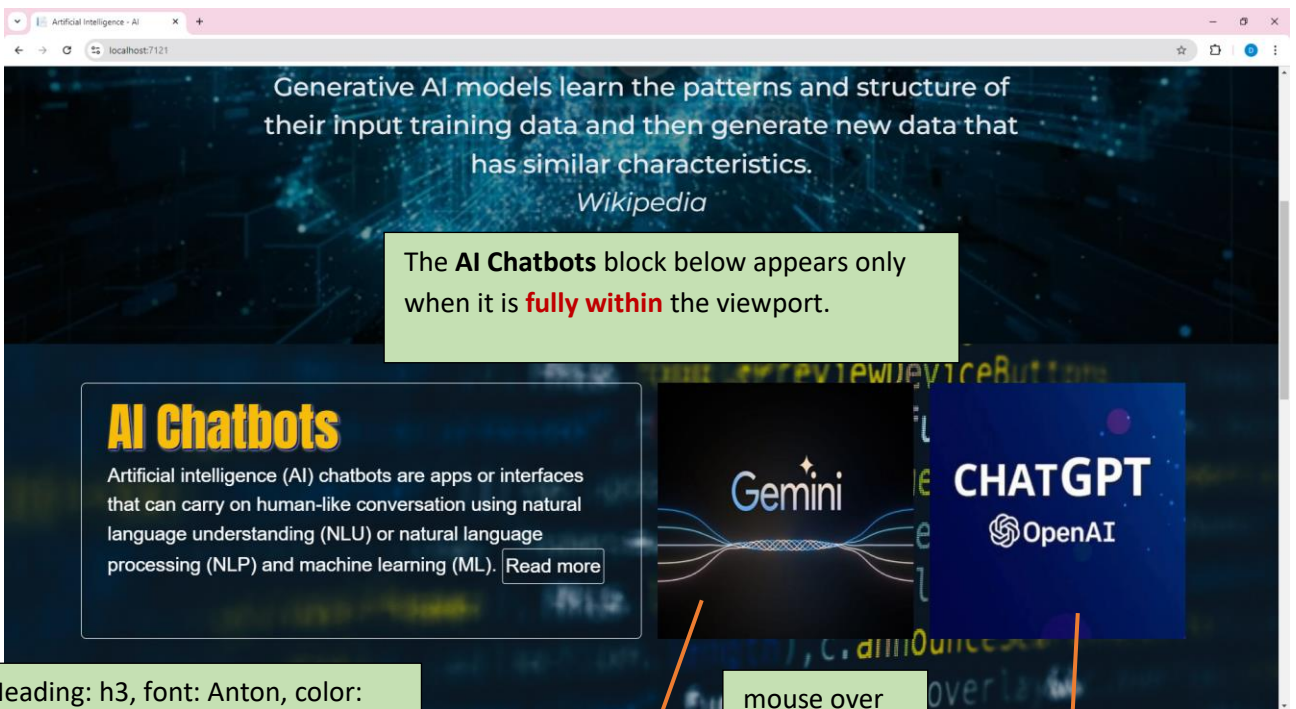
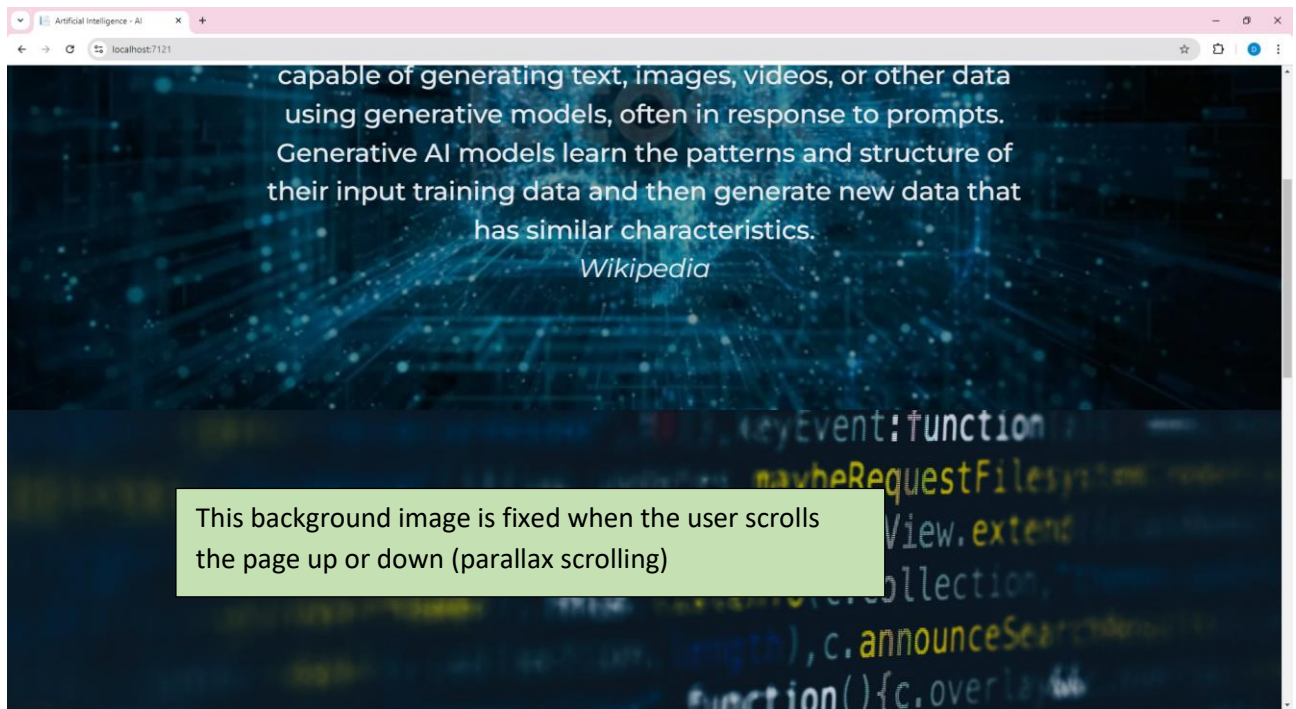
**viewport width ≥ 768px**



- No blank space (gap) between the menu and the web page.
- No blank space (gap) on the left side and right side of the web page.
- The links to this home page on the menu are **GenAI** and **Home**.
- The filename for this home page is **Index.cshtml** in the **Views/Home/** folder.
- Some CSS properties for the main heading **Generative Artificial Intelligence**: `font-family: 'Anton', sans-serif; background-image: linear-gradient(to right, brown, brown, yellow, white, yellow, brown, brown); -webkit-background-clip: text; -webkit-text-fill-color: transparent; -webkit-text-stroke-width: 1px; -webkit-text-stroke-color: brown; padding: 9vw 2vw 0vw 2vw; text-align: center; font-size: 7vw;`
- Some CSS properties for the text below the heading: `font-family: 'Montserrat', sans-serif; font-size: 2vw; text-align: center;`
- Use a text content similar to below text in terms of content and size:

Generative artificial intelligence is artificial intelligence capable of generating text, images, videos, or other data using generative models, often in response to prompts. Generative AI models learn the patterns and structure of their input training data and then generate new data that has similar characteristics.  
<br><em>Wikipedia</em>

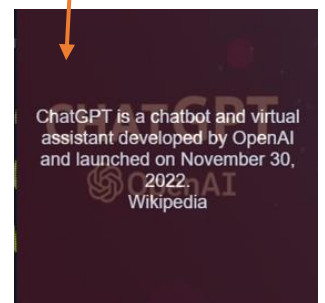
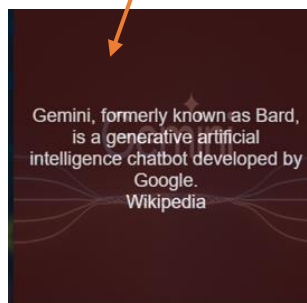
- Scroll down and you see the webpage with background image:



Heading: h3, font: Anton, color: #f8bd08, font-size: 4vw, text-shadow: 2px 2px 0px navy, 2px 2px 4px white;

Text: p, font: Lato, color: white, font-size: 1.5vw.

mouse over

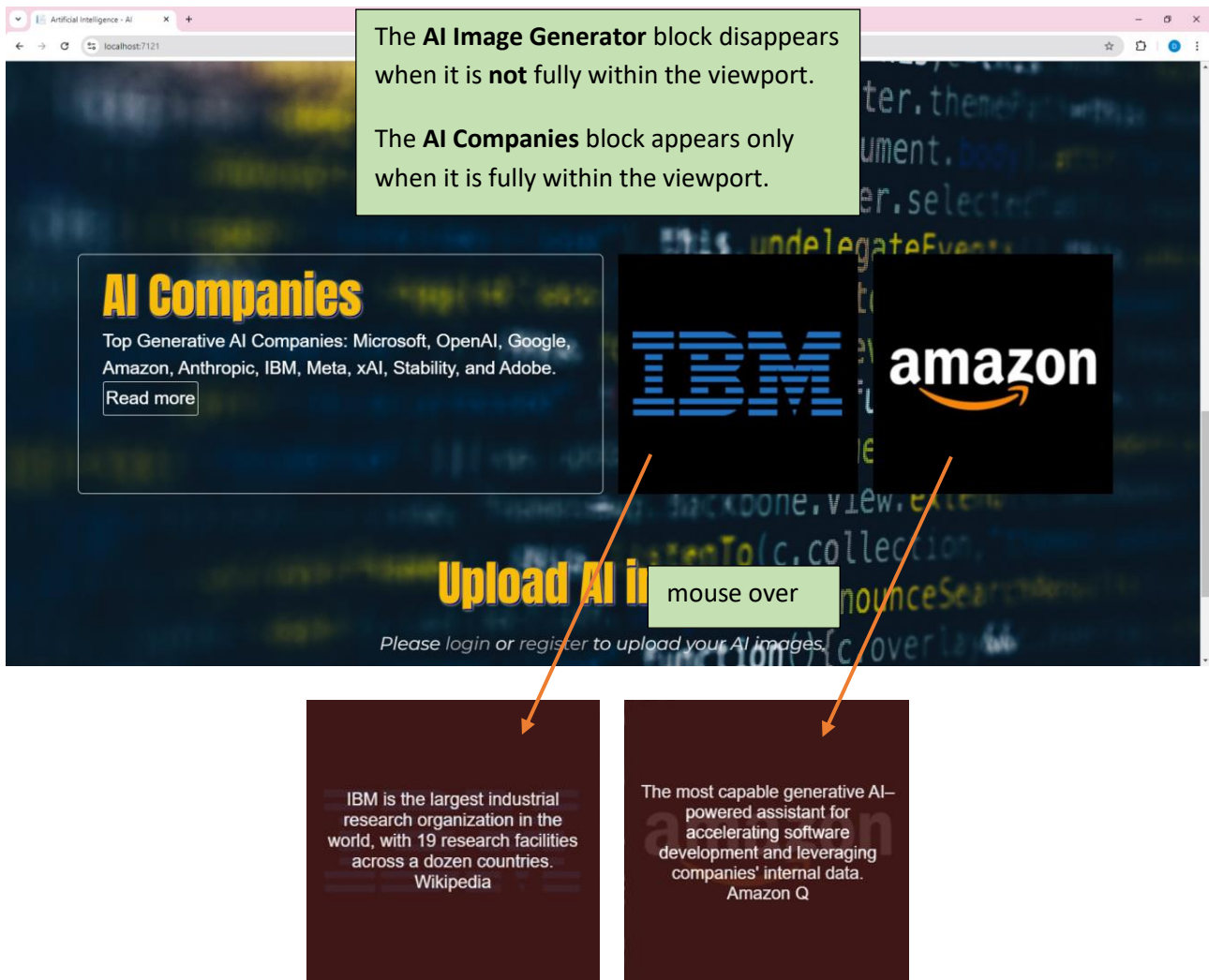


**Square block:** background-color: x color: white; font: normal 1.2vw arial;  
:hover: opacity: 0.9; transition: 2s ease;

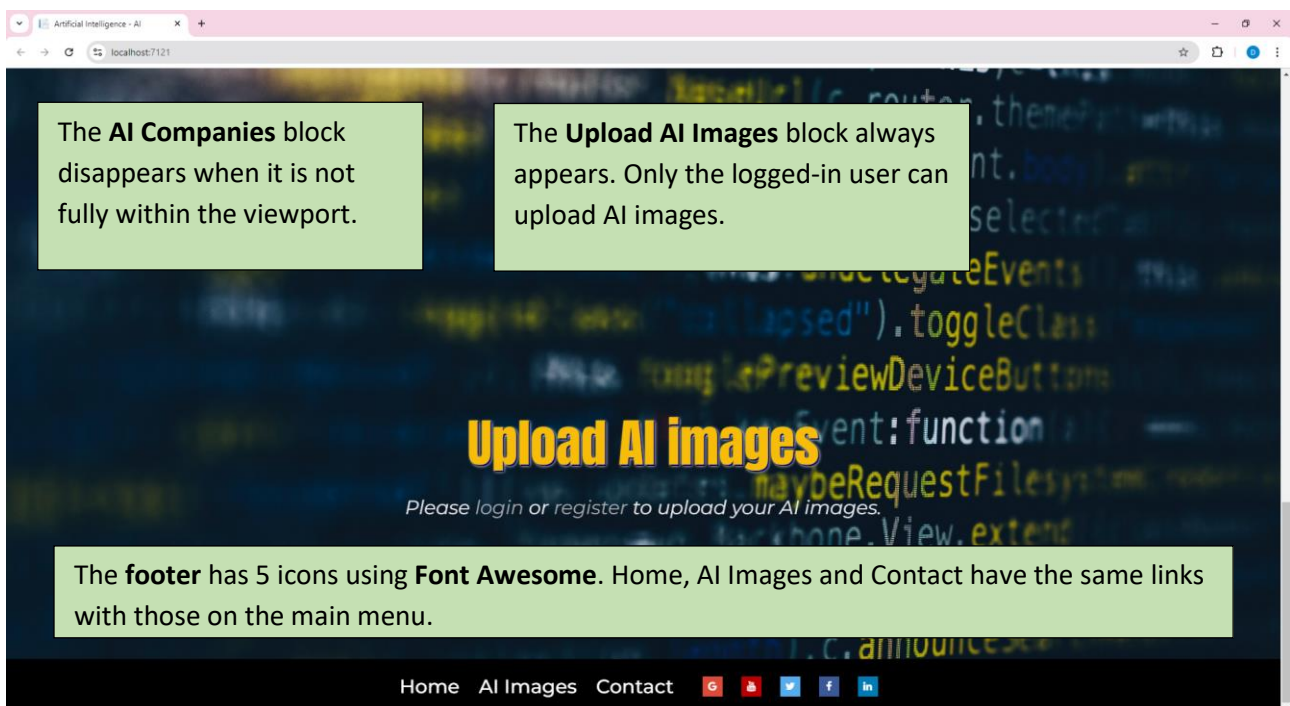




**Square block:** background-color: x; color: x; font: normal 1.2vw arial;  
**:hover:** opacity: 0.9; transition: 2s ease;



**Square block:** background-color: x color: x; font: normal 1.2vw arial;  
:hover: opacity: 0.9; transition: 2s ease;



Use a text similar to the following text in terms of size and content for the above 3 blocks:

- **Block 1:**

#### AI Chatbots

Artificial intelligence (AI) chatbots are apps or interfaces that can carry on human-like conversation using natural language understanding (NLU) or natural language processing (NLP) and machine learning (ML).

#### Gemini image

A sample text to appear for mouse hover:

Gemini, formerly known as Bard, is a generative artificial intelligence chatbot developed by Google.<br>Wikipedia

A sample hyperlink to external web page for mouse click: <https://gemini.google.com/app>

#### ChatGPT image

A sample text to appear for mouse hover:

ChatGPT is a chatbot and virtual assistant developed by OpenAI and launched on November 30, 2022.<br>Wikipedia

A sample hyperlink to external web page for mouse click: <https://openai.com/index/chatgpt/>

- **Block 2:**

#### Pixlr image

Sample text to appear for mouse hover

Pixlr is a group of AI-powered SaaS creative tools including Pixlr.com, Designs.ai and Vectr.com. <br>Wikipedia

A sample hyperlink to external web page for mouse click <https://pixlr.com/image-generator/>

#### DALL-E image

Sample text to appear for mouse hover

DALL·E, DALL·E 2, and DALL·E 3 are text-to-image models developed by OpenAI.<br>Wikipedia

A sample hyperlink to external web page for mouse click <https://openai.com/index/dall-e-3/>

#### AI Image Generator

AI Image Generator is an innovative tool using advanced AI techniques to generate image from a text prompt, just write what you want to generate and our AI will create it.

Sample link for Read more: <https://pixlr.com/image-generator/>

- **Block 3:**

#### AI Companies

Top Generative AI Companies: Microsoft, OpenAI, Google, Amazon, Anthropic, IBM, Meta, xAI, Stability, and Adobe.

Sample link for Read more: <https://www.vktr.com/ai-market/10-top-generative-ai-companies/>

#### IBM image

Sample text to appear when mouse hover

IBM is the largest industrial research organization in the world, with 19 research facilities across a dozen countries.<br>Wikipedia

Sample hyperlink to external web page for mouse click <https://www.ibm.com/au-en>

Amazon image

The most capable generative AI-powered assistant for accelerating software development and leveraging companies' internal data. <br>Amazon Q

Sample hyperlink to external web page for mouse click <https://aws.amazon.com/q/?nc2=h ql prod l1 q>

## Contact page (Views/Home/Contact.cshtml)

**Page for contact, about and copyright information:** to present contact details, information about this website, copyright, and other useful information.

Below are the layouts required for this page on different devices.

- The link to this page on the menu and footer is **Contact**.
- No blank space around the menu and the web page.
- The heading **Contact & About** has the same CSS properties as those on the **Home** page except the following CSS properties for stroke (text border) are **not** used: ~~-webkit-text-stroke-width: 1px;~~ ~~-webkit-text-stroke-color: x;~~
- The background image and parallax scrolling are the same as those on the **Jobs** page.
- Use Bootstrap to produce the 3 columns for Contact Us, About Us and Copyright. See the screenshots below for tablet and mobile phone for more details.
- Content on this page:

Contact Us

This website is developed by [your name]

To get in contact please email [link to your email address]

About Us [Change with details of your website]

This website provides an introduction to Artificial Intelligence and was created as partial fulfillment of the assessment requirements of Web Design and Programming at the University of Canberra.

This site is built on the ASP.NET CORE framework and employs Bootstrap responsive design techniques.

Copyright

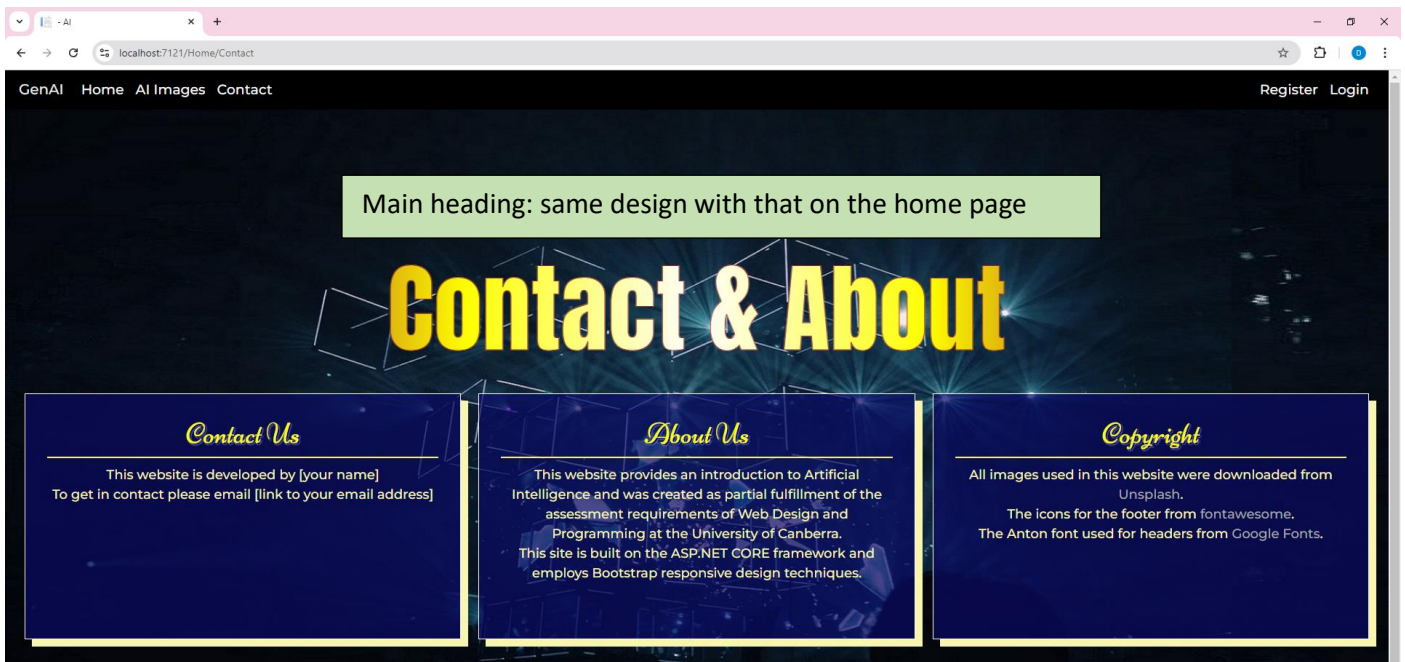
All images used in this website were downloaded from Unsplash [insert yours]

The icons for the footer from font awesome. [insert yours]

The Anton font used for headers from Google Fonts. [insert yours]

- Hyperlinks in the Copyright column for
  - Unsplash: <https://unsplash.com/> [insert yours]
  - fontawesome: <https://fontawesome.com/> [insert yours]
  - Google fonts: <https://fonts.google.com/> [insert yours]





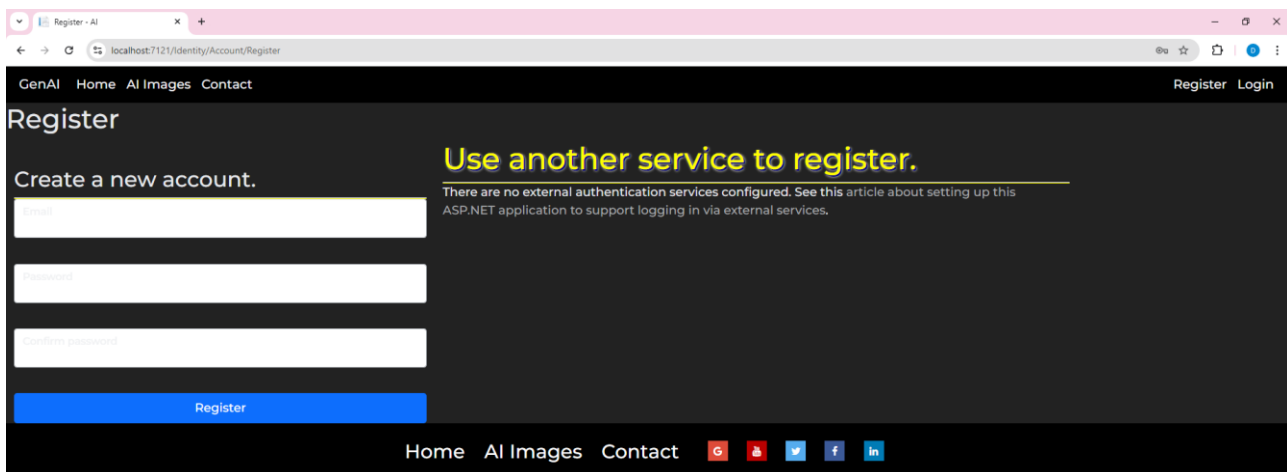
3 blocks: border: 1px solid white, box-shadow: 10px 10px 0px 0px #f8f6b0;  
 3 sub-headings: h1, font: Niconne, color: yellow, font-size: 2.5rem, text-shadow: 2px 2px 0px navy, 2px 2px 2px white;  
 Text: p, font: Arial, color: yellow, font-size: 1vw.

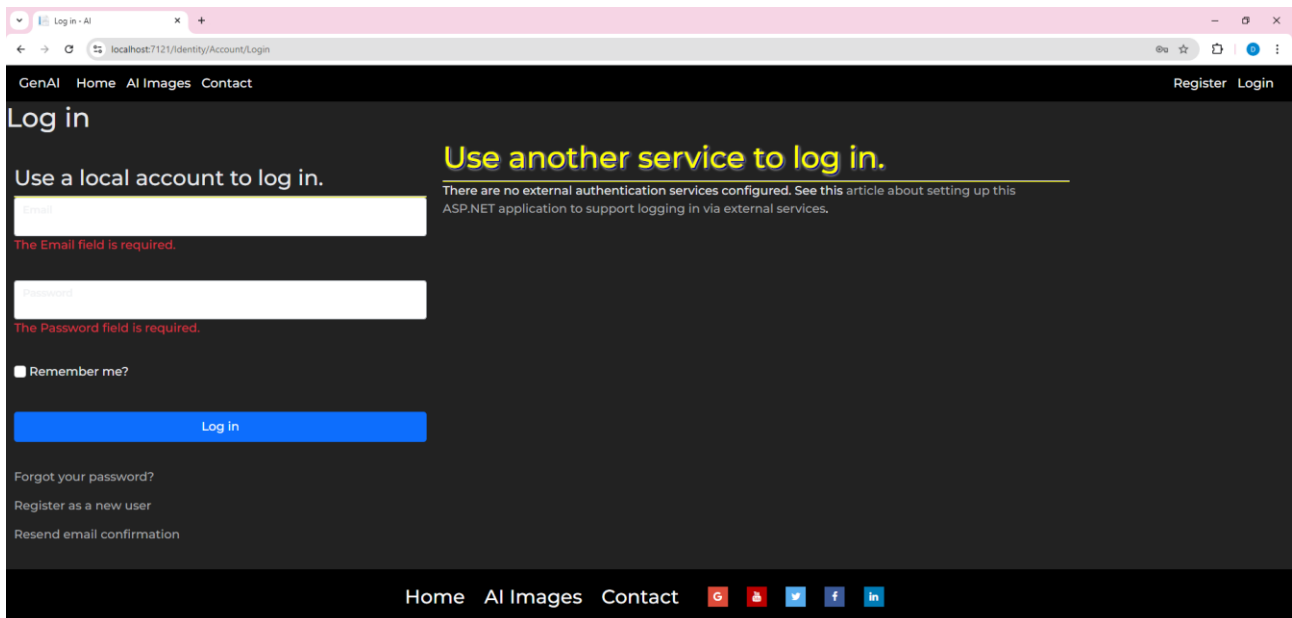
## List of AI Images **Page (Link AI Images on menu and footer)** **(Views/AllImages/Index.cshtml)**

- Scroll down the **Home** page to the bottom.



- If the user clicks the **register** link or **login** link on this block (the same for **Register** or **Login** on the menu)



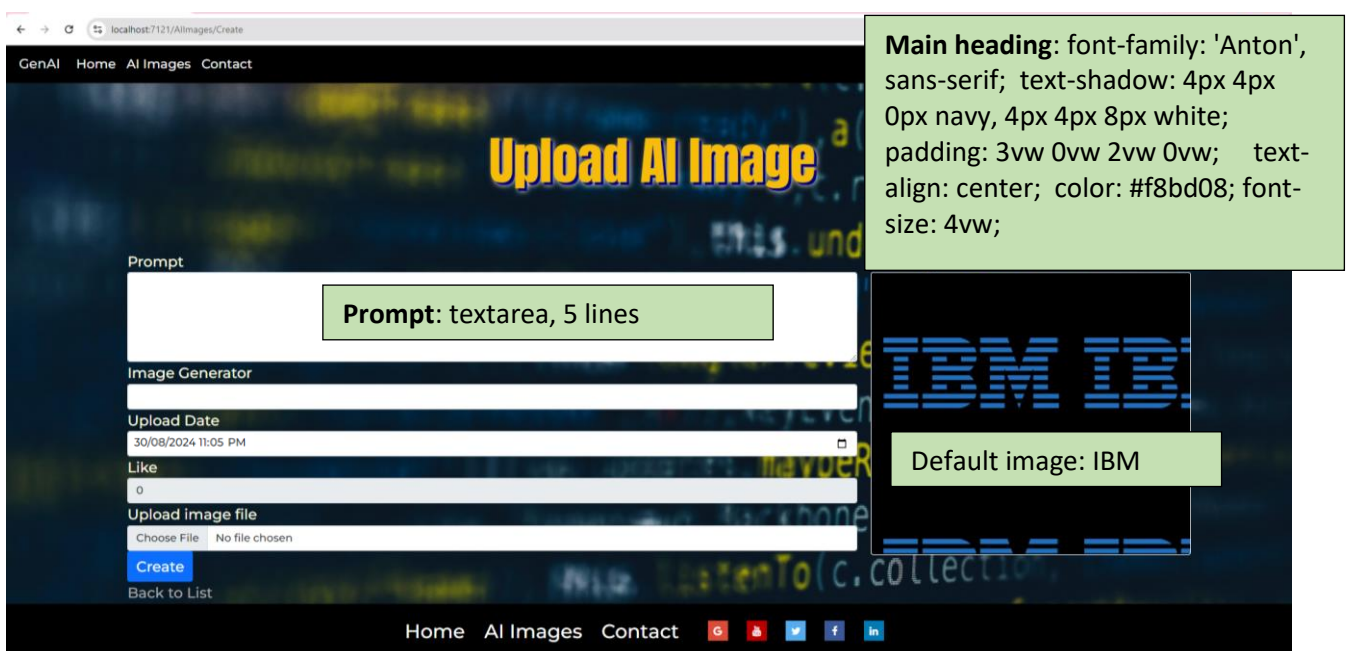


- After the user registered then logged in and back to the **Home** page, the text **Please login or register to upload your AI images.**[change the sentence if required] is changed to:

**Click here to upload a new AI image.** [change if required]



- The user clicks on that text and the **Create** page (**Views/AllImages/Create.cshtml**) is loaded:



**Upload date** is automatically set to the current date.

**Upload date** and **Like** are **read only**. User cannot change them here.

## Upload AI Image

The logged in user [admin@asp.net](#) has admin role.

### Prompt

A beautiful yellow canary with shimmering sheen swinging on a bird feeder in an oil painting style. Large cherry blossoms are emerging around the canary in rich saturated colors of pink, white and soft green with the feeder surrounded by leaves visible. The painting has a rich and opulent aesthetic with warm light and iridescent color.

### Image Generator

Microsoft Designer

### Upload Date

30/08/2024 11:05 PM

### Like

0

### Upload image file

Choose File msdesigner1.jpg

Create

Back to List

After the **Create** button is clicked, all input details are saved to the server database and the image is uploaded to the **wwwroot/uploads/** folder.

A block for Microsoft Designer appears.

## Upload AI images

Click here to upload a new AI image

Microsoft Designer

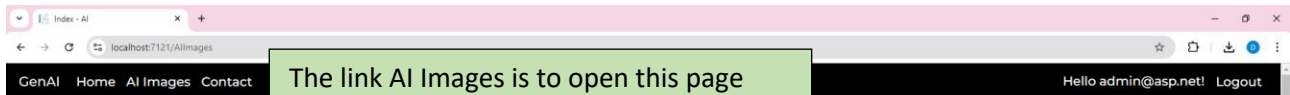
Home AI Images Contact

Mouse over: the image fades in 2 seconds.



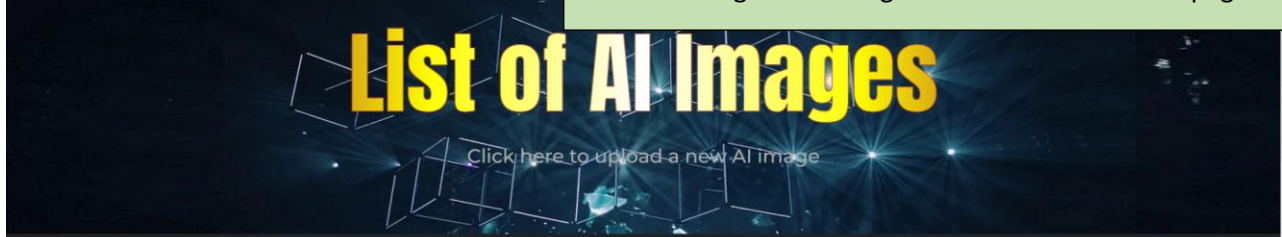
If the user clicks on this block, the user is redirected to the block for **Microsoft Designer** on the **AI Images** page using an **anchor link**. See below.





**Views/AllImages/Index.cshtml**

Main heading: same design with that on the home page



A beautiful yellow canary with shimmering sheen emerging around the canary in rich saturated colors of pink, white and soft green with the feeder surrounded by leaves visible. The painting has a rich and opulent aesthetic.

Like (0) Edit Delete

MICROSOFT DESIGNER

Heading: h3, color: navy;  
text-shadow: 2px 2px 0px white, 2px 2px 4px navy;  
font-family: "Oxygen", sans-serif;  
letter-spacing: 7px;  
text-transform: uppercase;  
text-align: center;  
padding-bottom: 20px;  
Text: p, font: Arial, color: black, font-size: 1vw.

The **admin** can see three buttons Like, Edit and Delete.

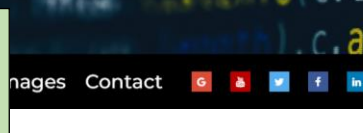
**Views/Home/Index.cshtml**



After uploading the second image.

Mouse over the second image.

If the user clicks on the **second** block, the user is redirected to the block for **Microsoft Designer** on the **AI Images** page using an **anchor link**. See below.



A beautiful yellow canary with shimmering sheen swinging on a bird feeder in an oil painting style. Large cherry blossoms are emerging around the canary in rich saturated colors of pink, white and soft green with the feeder surrounded by leaves visible. The painting has a rich and opulent aesthetic.

Like (0) Edit Delete

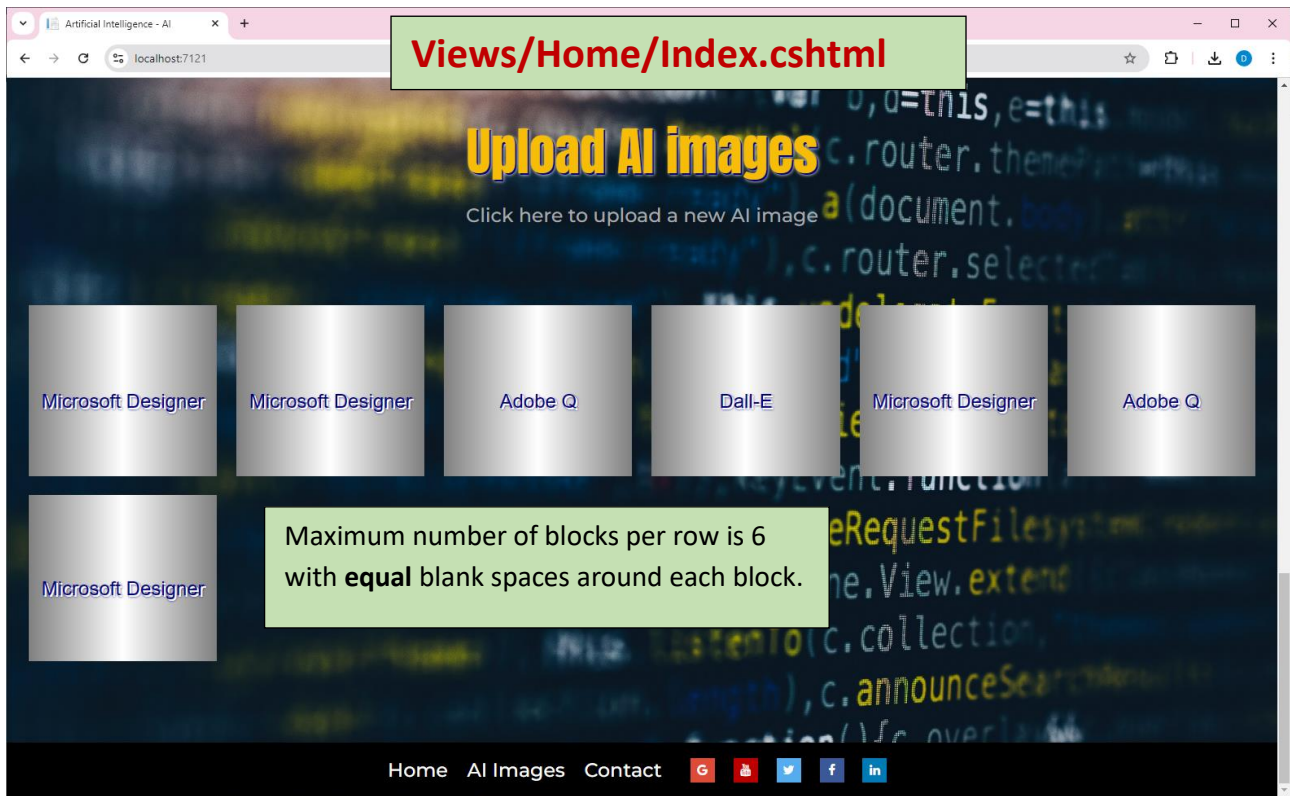
MICROSOFT DESIGNER

Background: linear-gradient(to bottom, #ff9933, #ffe6cc, white, white)



Background: linear-gradient(to bottom, #3333ff, #ccccff, white, white);





If the logged-in user is admin and clicks the **Edit** button, the **Edit** page in the **Views/AllImages/** folder is loaded. The admin can change the text and image and clicks the **Save** button to update the database.

## Views/AllImages/Edit.cshtml

### Edit AI Image

Prompt

A beautiful yellow canary with shimmering sheen swinging on a bird feeder in an oil painting style. Large cherry blossoms are emerging around the canary in rich saturated colors of pink, white and soft green with the feeder surrounded by leaves visible. The painting has a rich and opulent aesthetic with warm light and iridescent color.

Image Generator

Microsoft Designer

Upload Date

31/08/2024 01:03:39.019 AM

Like

0

Upload image file

Choose File No file chosen

Save

Back to List

Upload date is automatically set to the current date.

Upload date and Like are read only. User cannot change them here.

Design this page as seen in the screenshot. The current image is loaded on the right block.

**Main heading:** font-family: 'Anton', sans-serif; text-shadow: 4px 4px 0px navy, 4px 4px 8px white; padding: 3vw 0vw 2vw 0vw; text-align: center; color: #f8bd08; font-size: 4vw;

## Views/AllImages/Delete.cshtml

### Delete AI Image

**Are you sure...:** font-family: 'Anton', sans-serif; text-shadow: 2px 2px 0px navy, 2px 2px 4px white; color: yellow; font-size: 2em;

Are you sure you want to delete this?

AllImage

Prompt

A beautiful yellow canary with shimmering sheen swinging on a bird feeder in an oil painting style. Large cherry blossoms are emerging around the canary in rich saturated colors of pink, white and soft green with the feeder surrounded by leaves visible. The painting has a rich and opulent aesthetic with warm light and iridescent color.

Image Generator

Microsoft Designer

Upload Date

1/01/0001 12:00:00 AM

Filename

msdesigner1.jpg

Like

0

Delete

Back to List

**Main heading:** font-family: 'Anton', sans-serif; text-shadow: 4px 4px 0px navy, 4px 4px 8px white; padding: 3vw 0vw 2vw 0vw; text-align: center; color: #f8bd08; font-size: 4vw;

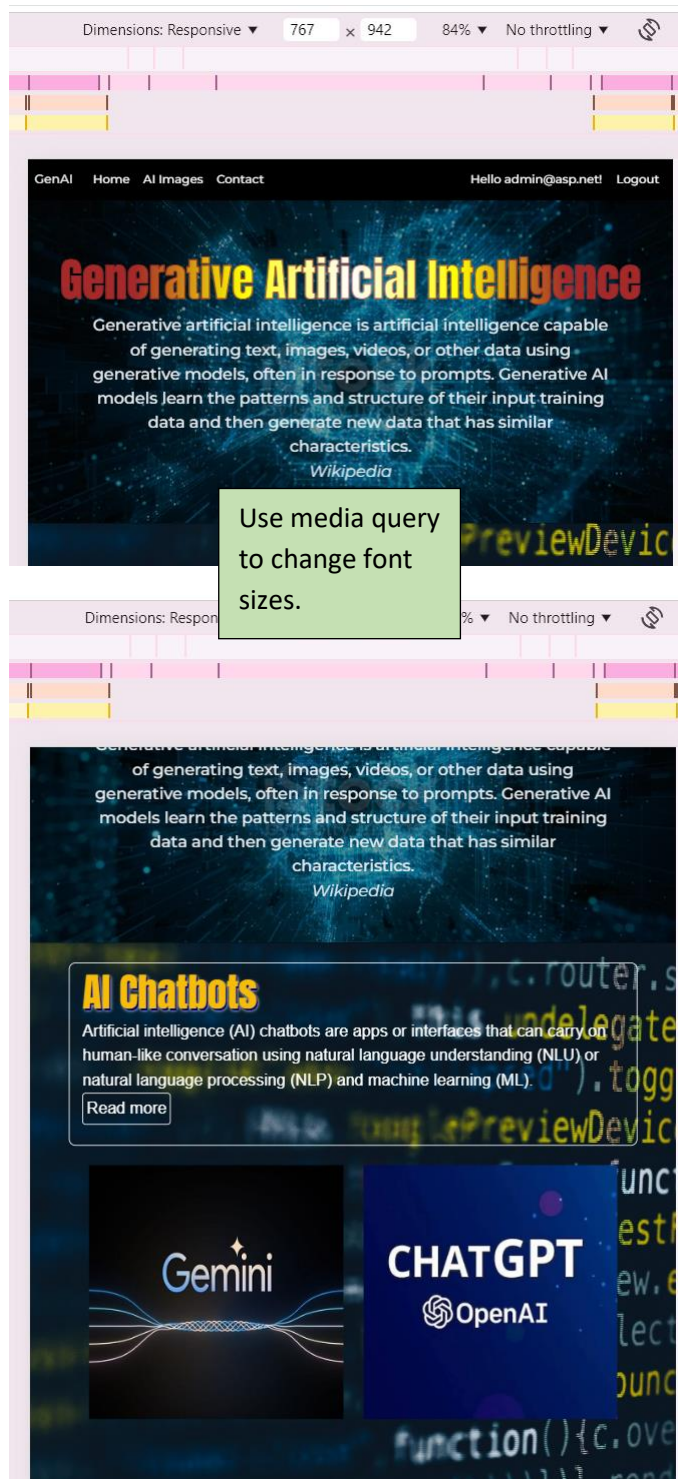
If the logged-in user is admin and clicks the **Delete** button, the **Delete** page in the **Views/AllImages/** folder is loaded. Design this page as seen in the above screenshot.

## Responsive Design

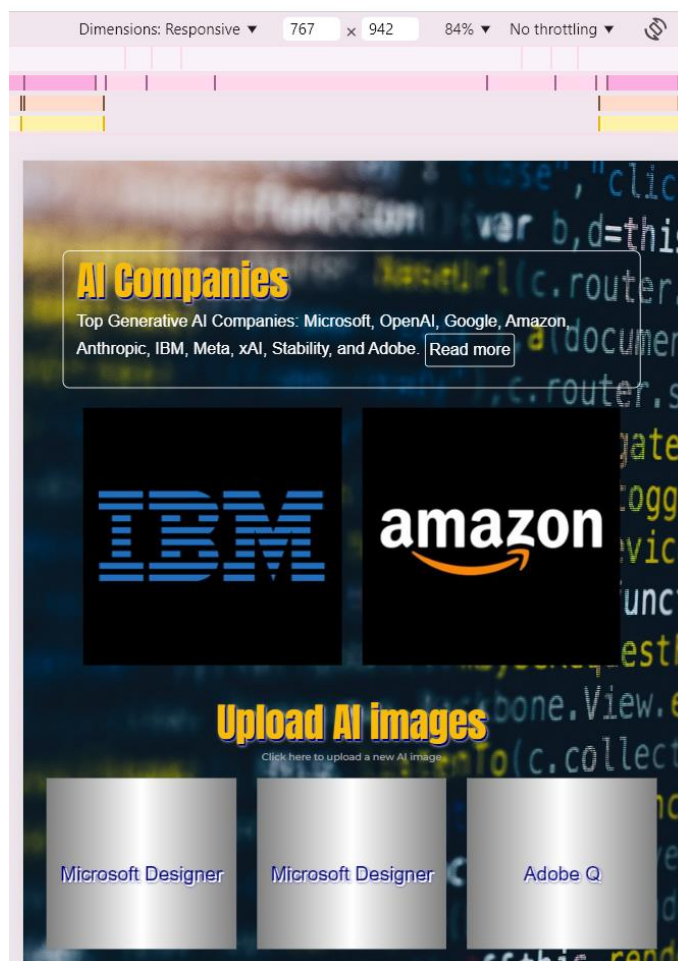
- All the screenshots you have seen above are for the devices with **viewport width  $\geq 768$ px** (laptop or desktop)
- Below are screenshots for the devices that have smaller viewports.

576px ≤ viewport width &lt; 768px

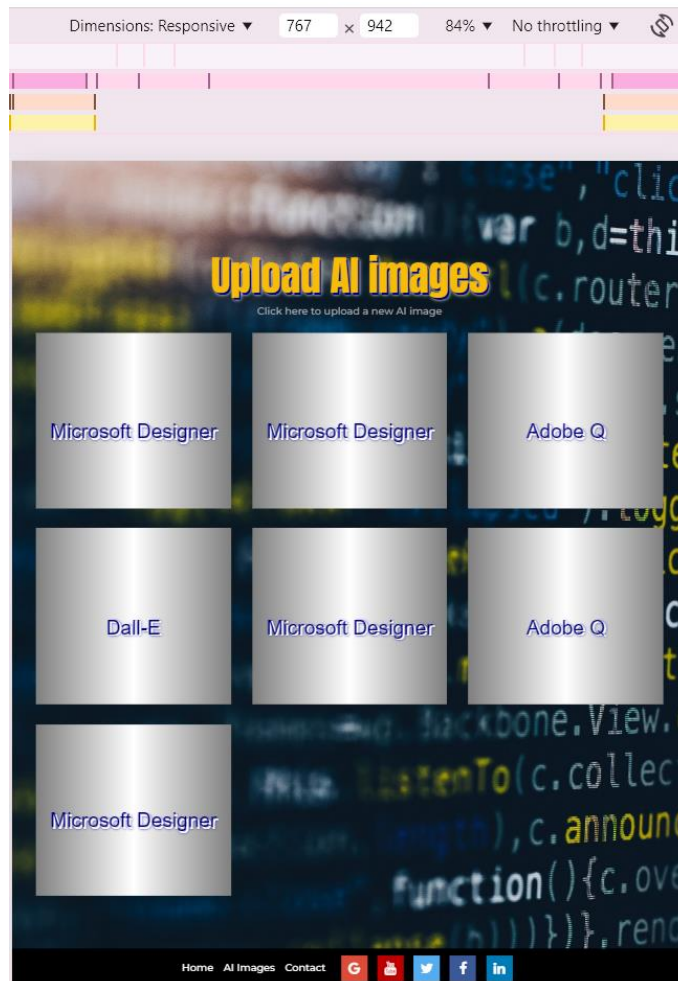
The menu has  
the same design.









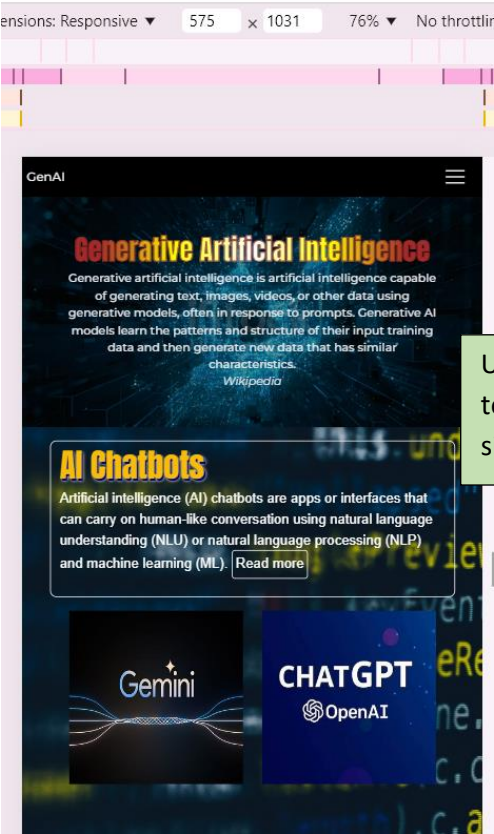


## HOME Page

viewport width < 576px

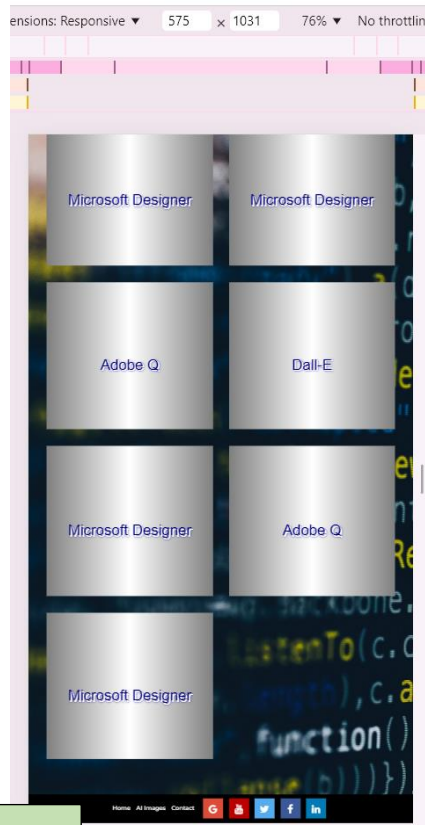
Views/Home/Index.cshtml

The **menu** changes its design.



Use media query to change font sizes.



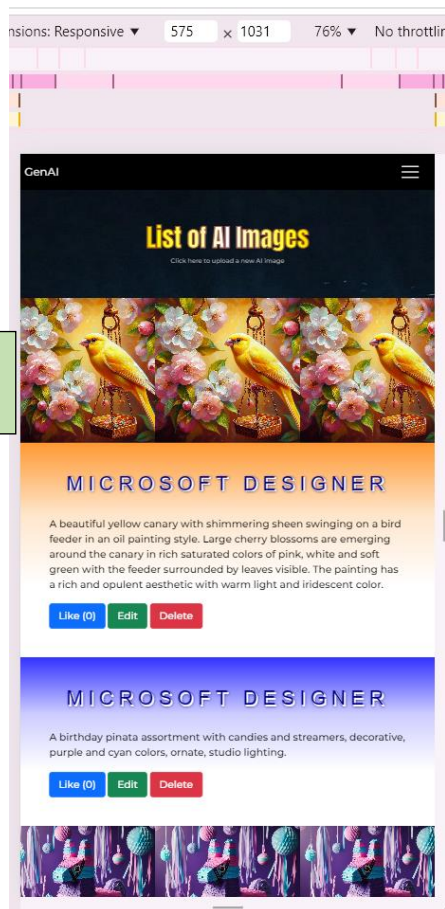


**Views/AllImages/Index.cshtml**

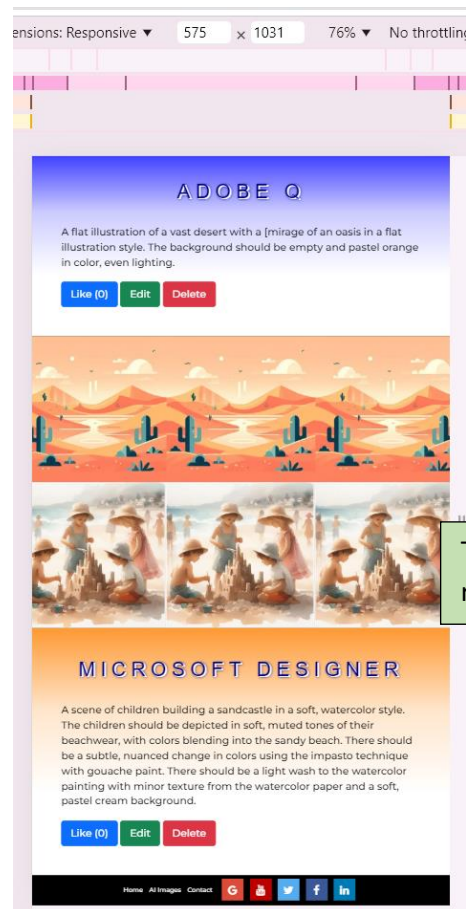
## List of AI Images Page (Link AI Images on menu and footer)

**576px ≤ Viewport width < 768px and viewport width < 576px have the same design**

The image repeats.



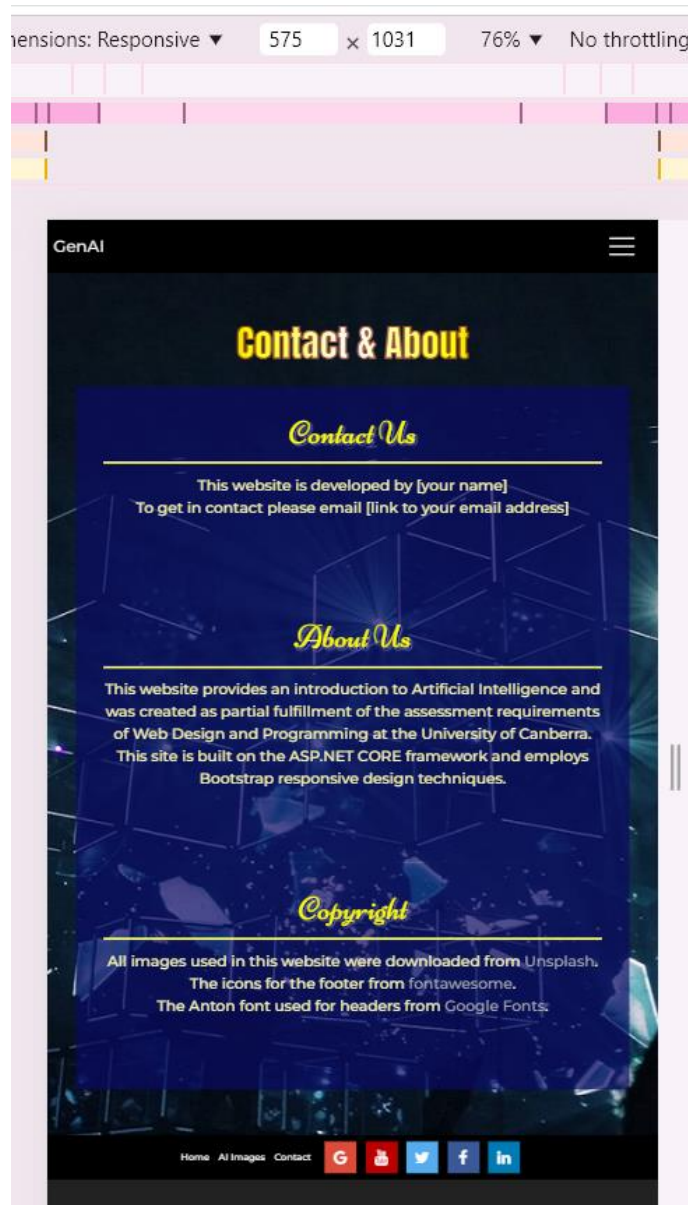
The image repeats.



# Contact Page

Views/Home/Contact.cshtml

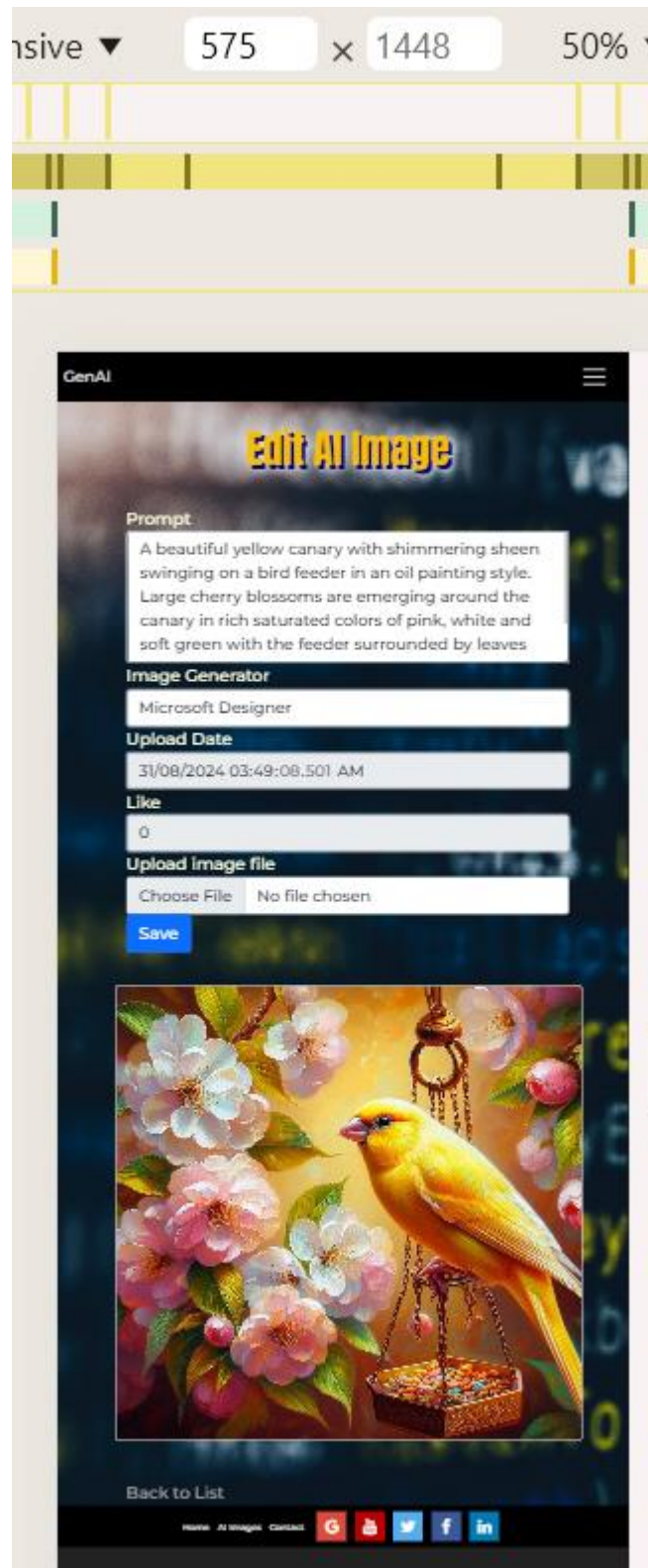
576px ≤ viewport width < 768px and viewport width < 576px have the same design





## Create and Edit pages

576px ≤ viewport width < 768px and viewport width < 576px have the same design. Below is for Edit page (Create page has the same layout)



Other pages (Register, Login, Details and Delete) have the same design for all viewport widths.

The **AllImage** model file (used with Entity Framework to create views, controller and database):

```
public class AllImage
{
    public AllImage ()
    {
        Prompt = "";
        ImageGenerator = "";
        Filename = "";
    }
    [Required]
    public int Id { get; set; }

    [Required]
    public string Prompt { get; set; }

    [Required]
    [Display(Name = "Image Generator")]
    public string ImageGenerator { get; set; }

    [Display(Name = "Upload Date")]
    public DateTime UploadDate { get; set; }

    public string Filename { get; set; }

    public int Like { get; set; }

    public bool canIncreaseLike { get; set; }
}
```

**Models/AllImage.cs**