



## Program - BSc (Hons) Computer Systems Engineering (BSc.IT)

**NAME:** Aarjan Paudel

**STUDENT NUMBER:** 240703679

**MODULE CODE:** CET138

**MODULE TITLE:** Full Stack Development

**MODULE LEADER:** David Grey

**SUBMISSION DATE AND TIME:** As stated in the assignment submission page on Canvas for this module

**ASSIGNMENT:** First Assignment

**Academic Misconduct is an offence under university regulations, and this involves:**

- **Plagiarism** – where you use information from another information source (including your previously submitted work) and pass it off as your own. This can be through direct copying, poor paraphrasing and/or absence of citations.
- **Collusion** – where you work too closely, intentionally, or unintentionally, with others to produce work that is similar in nature. This can be through loaning of materials, drafts or through unauthorised use of a fellow student's work.
- **Asking another person to write your assignment** – where you ask another individual or company to complete your work for you, be that paid or unpaid, and submit it as if it were your own.
- **Unauthorised use of artificial intelligence** – where you use artificial intelligence tools to generate your assignment instead of completing it yourself and/or where you have not been given permission to use artificial intelligence tools by your module leader. Please complete the following declaration around your use of artificial intelligence tools in your assignment.

**STATEMENT ON USE OF ARTIFICIAL INTELLIGENCE TOOLS:**

• I have used artificial intelligence tools to generate an idea for my assignment:	<b>NO</b>
• I have used artificial intelligence tools to write my assignment for me:	<b>NO</b>
• I have used artificial intelligence tools to brainstorm ideas for my assignment:	<b>NO</b>
• I have used artificial intelligence tools to correct my original assignment:	<b>NO</b>

**DECLARATION**

- I understand that by submitting this piece of work I am declaring it to be my own work and in compliance with the university regulations on Academic Integrity.
- I confirm that I have done this work myself without external support or inappropriate use of resources.
- I understand that I am only permitted to use artificial intelligence tools in line with guidance provided by my Module Leader, and I have not used artificial intelligence tools outside this remit.
- I confirm that this piece of work has not been submitted for any other assignment at this or another institution prior to this point in time.
- I can confirm that all sources of information, including quotations, have been acknowledged by citing the source in the text, along with producing a full list of the sources used at the end of the assignment.
- I understand that academic misconduct is an offence and can result in formal disciplinary proceedings.
- I understand that by submitting this assignment, I declare myself fit to be able to complete the assignment and I accept the outcome of the assessment as valid and appropriate.

**ANY OTHER COMMENTS FROM STUDENT:**

# CSS

## What is CSS?

### **Defination:**

CSS (Cascading Style Sheets) is a type of language used to set up and embellish web pages. In contrast with its detailed structure (headings, paragraphs, images, etc.), it is CSS's responsibility to make those things look good -- for example colors and fonts, layouts or even spacing.

To define it more graphically, one might see HTML as the bone structure of a web page, with CSS what covers that form has its skin, how it's put together; all the decorative touches (such as tables and lists).

## Key Features of CSS

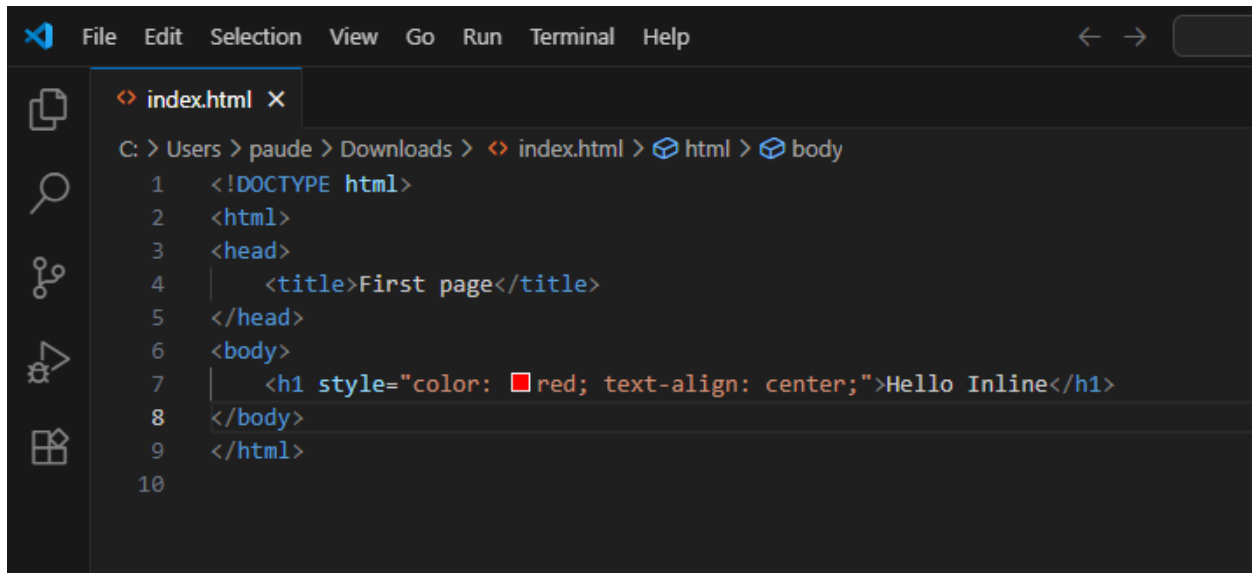
- **Styling:** With the following functions, colors, fonts, background images and such large text are changeable.
- **Layout control:** Via margin padding, flexbox, and grid, elements can be arranged.
- **Reusability:** A CSS file can be written and applied to multiple HTML pages.
- **Responsive design:** Use media queries in order for sites to display across all devices—including desktops, tablets, or phones.
- **Separation of concerns:** It keeps content (HTML) and design (CSS) separate so that the code looks cleaner and is easier to maintain.

## Ways of applying CSS:

### 1. Inline CSS

- Using style attributes in CSS is written directly inside the HTML element.
- This way is only for quick, one-time styling but it is not recommended during big projects.

## Example:



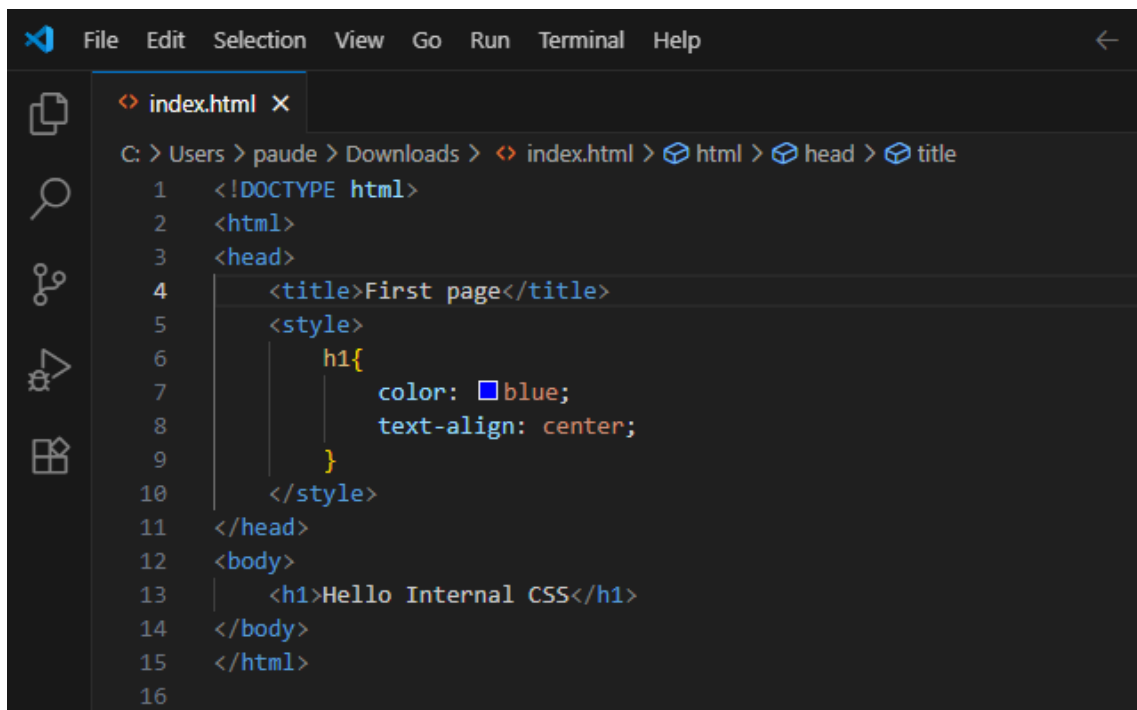
The screenshot shows the Visual Studio Code editor with a file named `index.html` open. The breadcrumb navigation indicates the file path is `C: > Users > paude > Downloads > index.html > html > body`. The code in the editor is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>First page</title>
5 </head>
6 <body>
7   <h1 style="color: red; text-align: center;">Hello Inline</h1>
8 </body>
9 </html>
10
```

## 2. Internal CSS

- In the `<head>` section of HTML file CSS is written using a `<style>` tag.
- This style is useful for single paged projects.

## Example:



The screenshot shows the Visual Studio Code editor with a file named `index.html` open. The breadcrumb navigation indicates the file path is `C: > Users > paude > Downloads > index.html > html > head > title`. The code in the editor is as follows:

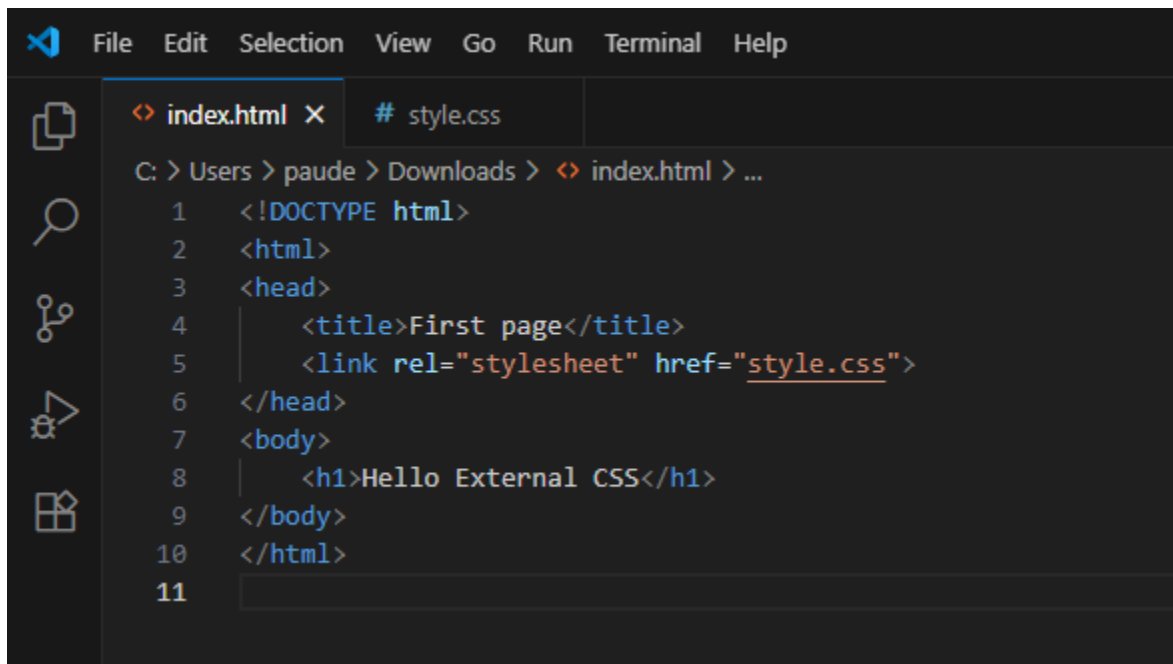
```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>First page</title>
5   <style>
6     h1{
7       color: blue;
8       text-align: center;
9     }
10  </style>
11 </head>
12 <body>
13   <h1>Hello Internal CSS</h1>
14 </body>
15 </html>
16
```

### 3. External CSS

- In this type we make a separate .css file to write CSS in it and we linked this file with the HTML file using <link>.
- This is the best method in all, and it's easy to understand the CSS code too.

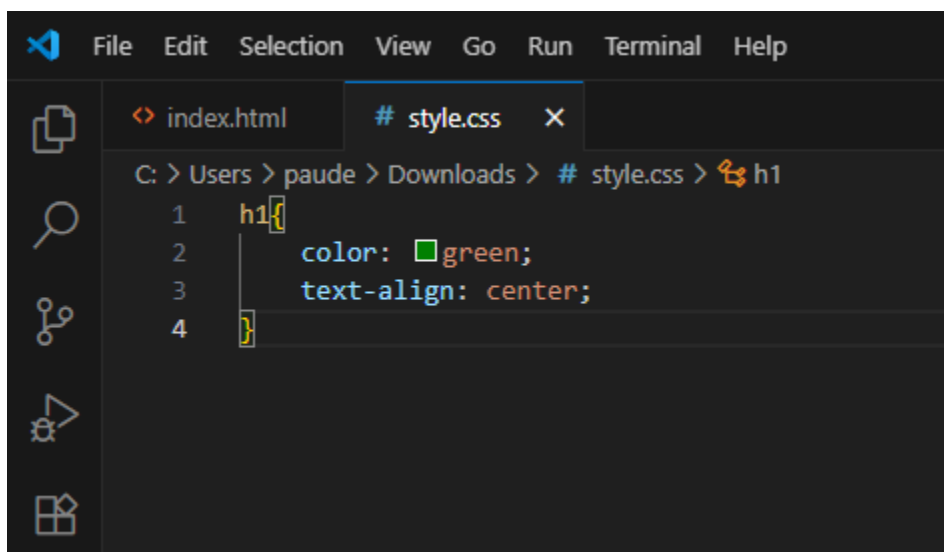
**Example:**

**HTML File (index.html)**



```
File Edit Selection View Go Run Terminal Help
index.html X # style.css
C: > Users > paude > Downloads > < index.html > ...
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>First page</title>
5   <link rel="stylesheet" href="style.css">
6 </head>
7 <body>
8   <h1>Hello External CSS</h1>
9 </body>
10 </html>
11
```

**CSS File (style.css)**



```
File Edit Selection View Go Run Terminal Help
index.html # style.css X
C: > Users > paude > Downloads > # style.css > h1
1 h1{
2   color: green;
3   text-align: center;
4 }
```

## **My Task: CSS Student ID Card:**

As part of the assignment, I created a student ID card using HTML for the structure and CSS for styling.

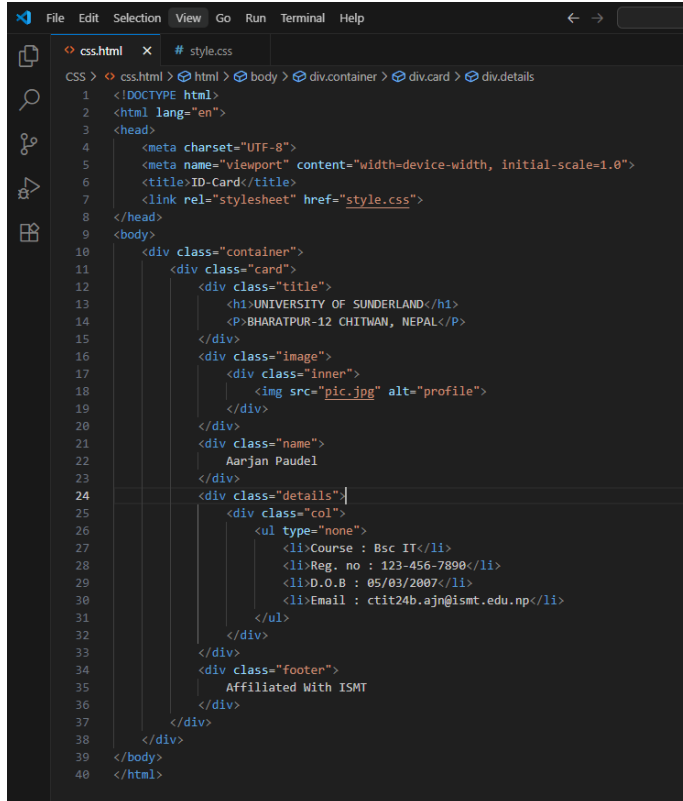
### **What it demonstrates:**

- For basic content structuring, HTML (title, image, name, details, footer).
- For design and style added with the External CSS:
  - Color scheme for body and card.
  - Font types and text styling on headings and details.
  - For rounded edges using border-radius.
  - Depth and layering using box-shadow.
  - Flexbox (display: flex;) is used to centrally align items.
  - Image cropping with fixed size and rounded corners.
  - Proper spacing using margin and padding.

## Screenshot of Code:

## HTML Code:

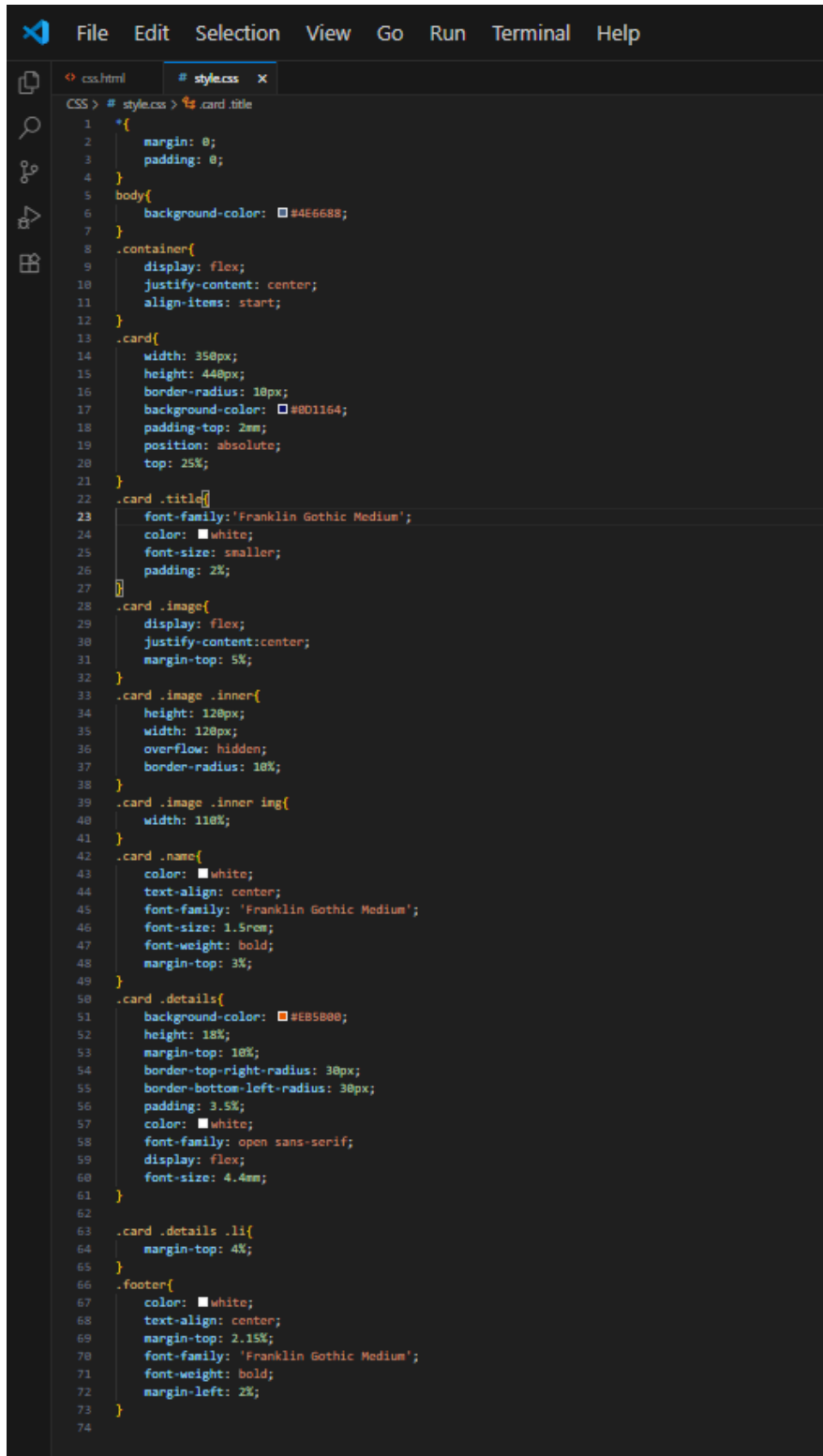
This is code for to make the structure of the Student-ID card that I have done.



```
css.html x # style.css
CSS > css.html > html > body > div.container > div.card > div.details
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>ID-Card</title>
7   <link rel="stylesheet" href="style.css">
8 </head>
9 <body>
10   <div class="container">
11     <div class="card">
12       <div class="title">
13         <h1>UNIVERSITY OF SUNDERLAND</h1>
14         <p>BHARATPUR-12 CHITWAN, NEPAL</p>
15       </div>
16       <div class="image">
17         <div class="inner">
18           
19         </div>
20       </div>
21       <div class="name">
22         Aarjan Paudel
23       </div>
24       <div class="details">
25         <div class="col">
26           <ul type="none">
27             <li>Course : Bsc IT</li>
28             <li>Reg. no : 123-456-7890</li>
29             <li>D.O.B : 05/03/2007</li>
30             <li>Email : ctit24b.ajn@ismt.edu.np</li>
31           </ul>
32         </div>
33       </div>
34       <div class="footer">
35         Affiliated With ISMT
36       </div>
37     </div>
38   </div>
39 </body>
40 </html>
```

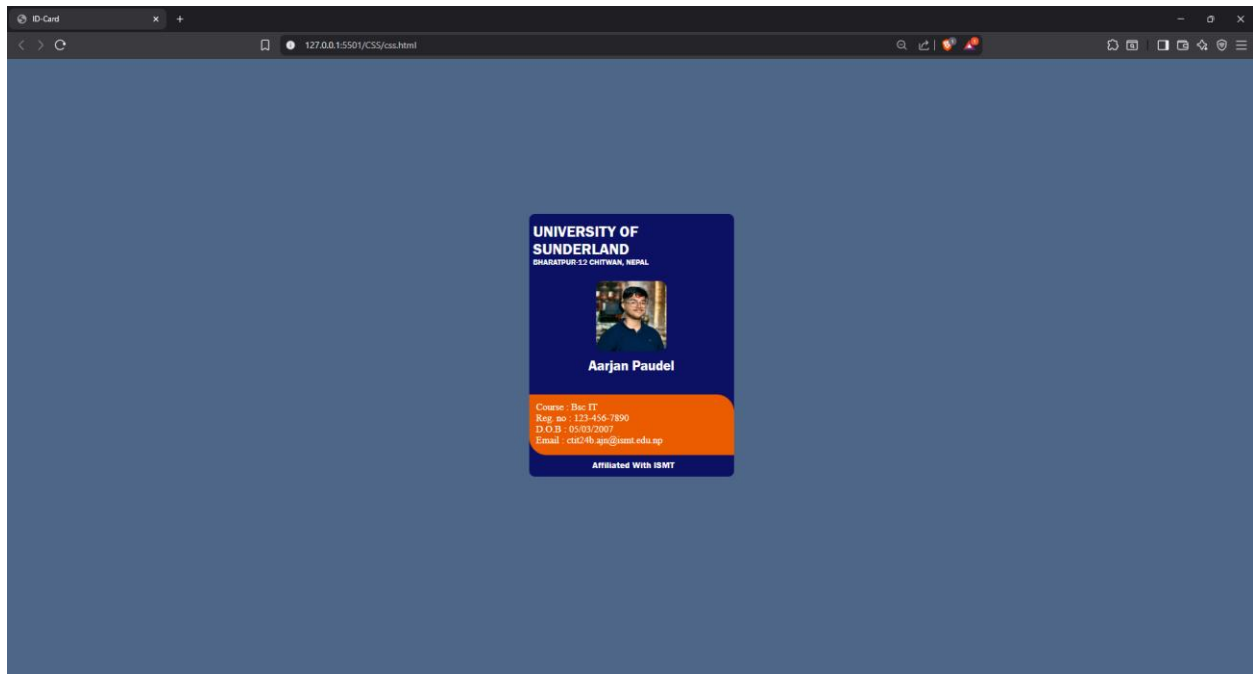
## CSS Code:

This is code for Styling the Structure that I have made using HTML.

A screenshot of a code editor with a dark theme. The editor has a menu bar at the top with 'File', 'Edit', 'Selection', 'View', 'Go', 'Run', 'Terminal', and 'Help'. Below the menu bar, there are two tabs: 'css.html' and 'style.css'. The 'style.css' tab is active, showing CSS code. The code is as follows:

```
CSS > # style.css > %$.card.title
1  *{
2      margin: 0;
3      padding: 0;
4  }
5  body{
6      background-color: #4E6688;
7  }
8  .container{
9      display: flex;
10     justify-content: center;
11     align-items: start;
12 }
13 .card{
14     width: 350px;
15     height: 440px;
16     border-radius: 10px;
17     background-color: #8D1164;
18     padding-top: 20px;
19     position: absolute;
20     top: 25%;
21 }
22 .card .title{
23     font-family: 'Franklin Gothic Medium';
24     color: white;
25     font-size: smaller;
26     padding: 2%;
27 }
28 .card .image{
29     display: flex;
30     justify-content: center;
31     margin-top: 5%;
32 }
33 .card .image .inner{
34     height: 120px;
35     width: 120px;
36     overflow: hidden;
37     border-radius: 10%;
38 }
39 .card .image .inner img{
40     width: 110%;
41 }
42 .card .name{
43     color: white;
44     text-align: center;
45     font-family: 'Franklin Gothic Medium';
46     font-size: 1.5rem;
47     font-weight: bold;
48     margin-top: 3%;
49 }
50 .card .details{
51     background-color: #EB5B00;
52     height: 18%;
53     margin-top: 10%;
54     border-top-right-radius: 30px;
55     border-bottom-left-radius: 30px;
56     padding: 3.5%;
57     color: white;
58     font-family: open sans-serif;
59     display: flex;
60     font-size: 4.4mm;
61 }
62 .card .details .li{
63     margin-top: 4%;
64 }
65 .footer{
66     color: white;
67     text-align: center;
68     margin-top: 2.15%;
69     font-family: 'Franklin Gothic Medium';
70     font-weight: bold;
71     margin-left: 2%;
72 }
73
74
```

## Result:



## How the Code works:

- The HTML file begins with `<!DOCTYPE html>`, and `<html>` specifies the document type.
- At the `<head>`, I linked external CSS file (style.css) to be read from this webpage.
- The `<body>` looks roughly like this:
  - a `<div class = "container ">`, which is holding the card.
  - Inside it, there is another `<div class="card">`, which represents your ID card.
  - This one has the university name and address in `<div class = "title">`
  - student picture, `<div class= "image">`
  - name of the student `<div class = "name">`.
  - The `<div class = "details">` contains an `<ul>` with course, registration number, Date Of Birth (DOB), and email.
  - Finally, `<div class="" footer">` shows where you are from.



**CSS file (style.css) styles elements as follows:**

- The body background is blue (#4E6688).
- .container uses Flexbox to align the card.
- .card is given width, height, background color (#0D1164), padding and rounded corners.
- .title .name .details .footer – Various fonts, color and alignment are employed for styling purposes.
- .image .inner makes the photo circular/rounded and ensures it stays within the frame.