Assignment-3

Part-1

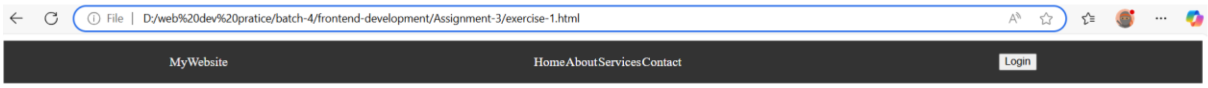
Exercise-1:

```
 .navbar {
    /*YOURTASK:Makethisaflexcontainer*/
    display: flex;
    /*YOURTASK:Alignitemsverticallyincenter*/
    align-items: center;
    /*YOURTASK:Spreadlogo,links,andbuttonapart*/
    justify-content: space-around;
    background-color: #333;
    color: white;
    padding: 1rem;
 }

 .nav-links {
    /*YOURTASK:Makethisaflexcontainer*/
    display: flex;
    /*YOURTASK:Removedefaultliststyling*/
    list-style: none;
    gap: 1px;
    width: 200px;
    margin: 0;
    padding: 0;
 }

 .nav-links li {
    /*YOURTASK:Addspacebetweenmenuitems*/
    justify-content: space-between;
    margin: 0.1rem;
 }
```

Output:

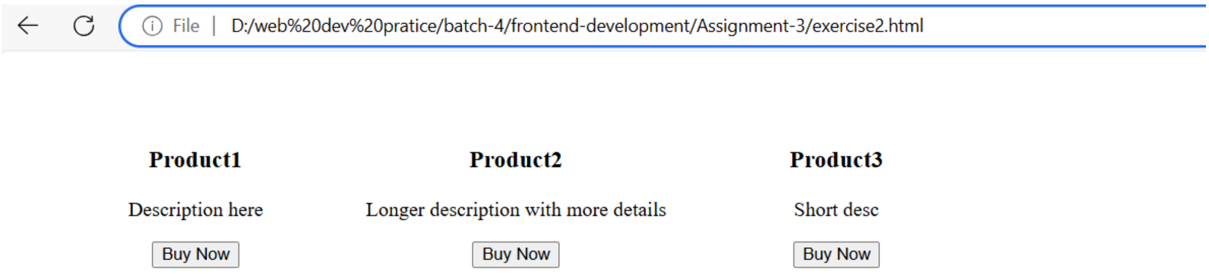

File | D:/web%20dev%20pratice/batch-4/frontend-development/Assignment-3/exercise-1.html
MyWebsite
HomeAboutServicesContact
Login

Exercise-2:

```
 .card-container {
    /*YOURTASK:Makethisaflexcontainer*/
    display: flex;
    /*YOURTASK:Allowwrappingtonextline*/
   flex-wrap: wrap;
    /*YOURTASK:Addspacebetweencards*/
    gap: 2px;
    padding: 2rem;
 }

 .card {
    /*YOURTASK:Makeeachcardtakeequalspace*/
    align-items: stretch;
    /*YOURTASK:Setminimumwidthbeforewrapping*/
    min-width: 200px;
    background: white;
    border: 1pxsolid#ddd;
    border-radius: 8px;
    padding: 1rem;
    text-align: center;
 }
```

Output:


File | D:/web%20dev%20pratice/batch-4/frontend-development/Assignment-3/exercise2.html

Product1

Description here

Product2

Longer description with more details

Product3

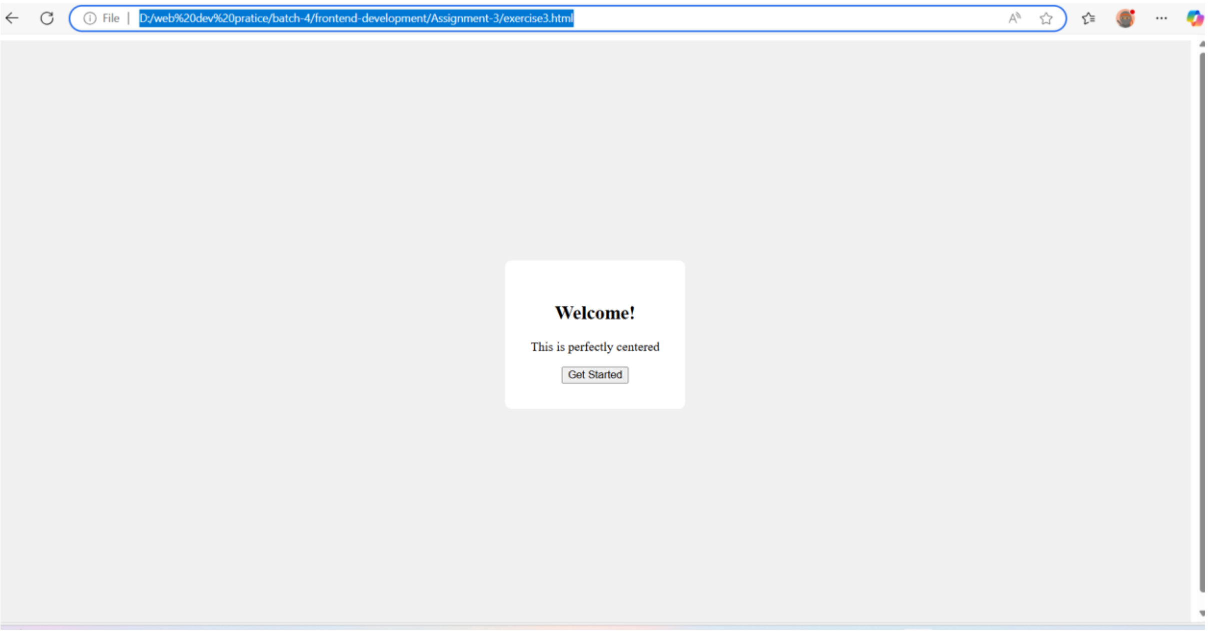
Short desc

Exercise-3:

```
.center-container {
   /*YOUR TASK: Make this a flex container*/
   display: flex;
   /*YOUR TASK:Center horizontally*/
   justify-content: center;
   /*YOURTASK: Center vertically*/
   align-items: center;
   height: 100vh;
   /*Full screen height*/
   background-color: #f0f0f0;
}

.centered-content {
   background: white;
   padding: 2rem;
   border-radius: 8px;
   text-align: center;
}
```

Output:



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Welcome!

This is perfectly centered

Part-2

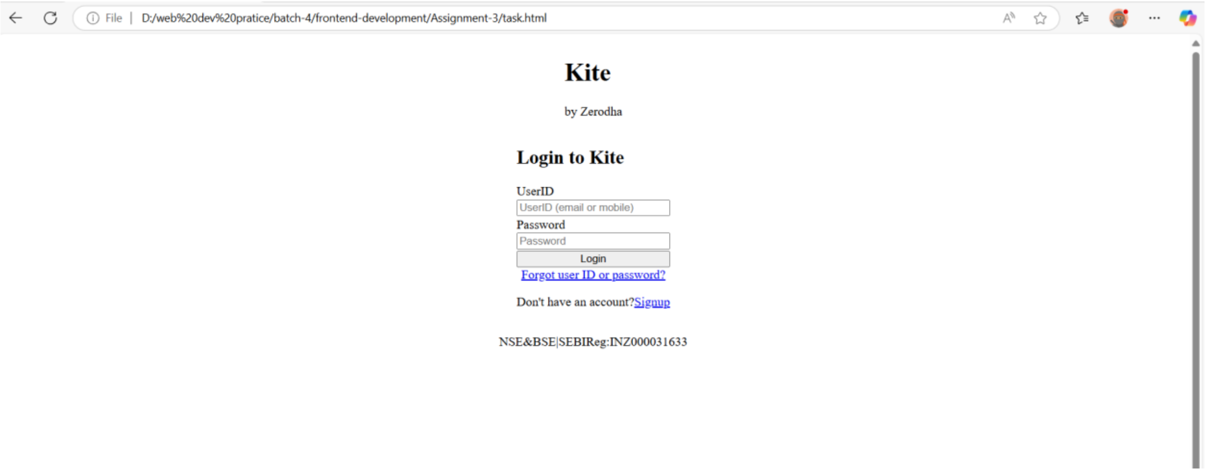
Task:

```
/*TASK-1*/

/*Complete these Flexbox implementations*/

.page-container {

   /*YOURTASK:Fullheight layout with header/main/footer*/

   height: 100vh;

}


.header {

   /*YOURTASK:Center the logo horizontally*/

   display: flex;

   justify-content: center;

}


.main-content {

   /*YOURTASK:Center login box both horizontally and vertically*/

   display: flex;

   align-items: center;

   justify-content: center;
```

```
  /*YOURTASK:Take up remaining space*/
  flex-grow: 1;
}

.login-form {
  /*YOURTASK:Stack form elements vertically with consistent spacing*/
  display: flex;
  flex-direction: column;
  gap: 1.5px;
}

.form-group {
  /*YOURTASK:Stack label and input with small gap*/
  display: flex;
  flex-direction: column;
  gap: 1px;
}

.help-section,
.signup-section {
  /*YOURTASK:Center text content*/

  text-align: center;
}

.footer {
  /*YOURTASK:Center footer text*/
  text-align: center;
}

/*TASK -2 */
```

```
@media(max-width:768px) {
  /*YOURTASK:Adjust spacing and sizes for tablet*/
  .header{
    padding: 1.5rem 1rem;
  }
  .main-content{
    padding: 1rem;
  }
  .login-box{
    pad: 2rem;
  }
  .brand-name{
    padding: 2rem;
  }
}

@media(max-width:480px) {
  /*YOURTASK:Adjust for mobile phones*/
  /*Consider changing any flex-direction if needed*/
  .header{
    padding: 1rem;
  }
  .main-content{
    padding: 1rem 0.5rem;
  }
  .login-box{
    padding: 1.5rem;
  }
  .brand-name{
    padding: 1.8rem;
    }
   .login-title{
       font-size: 1.5rem;
   }
}
```

Output:



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Kite

by Zerodha

Login to Kite

UserID

UserID (email or mobile)

Password

Password

Login

Forgot user ID or password?

Don't have an account?Signup

NSE&BSE|SEBIReg:INZ000031633

Part-3:

Task-3: Create Comparison Document

Why Flexbox for Zerodha Login:

1. List 5 specific reasons why Flexbox is perfect
   - Simple vertical stacking — Elements like headers, inputs, and buttons can be arranged in a single column with `flex-direction: column`.
   - Easy centering — Content can be centered both vertically and horizontally using `justify-content` and `align-items`.
   - Responsive by nature — Flexbox adapts automatically to various screen sizes without needing additional media queries.
   - Clean and concise code — Achieves layout goals with minimal CSS, no extra utility classes or frameworks.
   - Precise spacing control — The gap property and alignment options make it easy to control space between components.
2. Show before/after code examples

   Before:

```
<div class="container">
  <div class="login-box">
    <h2>Login</h2>
    <input type="text" placeholder="User ID">
    <input type="password" placeholder="Password">
    <button>Login</button>
  </div>
</div>

<style>
.container {
  margin-top: 100px;
  text-align: center;
}
.login-box {
  width: 300px;
  margin: auto;
}
</style>
```

After:

```
<div class="container">
  <div class="login-box">
    <h2>Login</h2>
    <input type="text" placeholder="User ID">
    <input type="password" placeholder="Password">
    <button>Login</button>
  </div>
</div>

<style>
.container {
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
}

.login-box {
  display: flex;
  flex-direction: column;
  gap: 16px;
  width: 300px;
}
</style>
```

3. Explain what problems Flexbox solves
    - Solves complex vertical and horizontal centering with minimal code.
    - Eliminates the need for margin hacks or fixed positioning.
    - Makes spacing between form elements consistent with gap.
    - Adapts layout easily to small screen sizes (like mobile devices).
    - Offers better readability and maintainability in code.

Why NOT CSS Grid:

1. Show what CSS Grid code would look like for the same layout

```
<div class="container">
  <div class="login-box">
    <h2>Login</h2>
    <input type="text" placeholder="User ID">
    <input type="password" placeholder="Password">
    <button>Login</button>
  </div>
</div>

<style>
.container {
  display: grid;
  place-items: center;
  height: 100vh;
}

.login-box {
  display: grid;
  row-gap: 16px;
  width: 300px;
}
</style>
```

2. Explain why it's unnecessarily complex
   - Grid is meant for **two-dimensional** layouts, while login pages are **one-dimensional**.
   - Additional properties (`grid-template-rows`, `grid-template-areas`) may add complexity.
   - Less intuitive for beginners who just want to stack elements.

3.WhenWOULDyouuseCSSGridinstead?

- When building **dashboards** or **complex layouts** with both rows and columns.
- Layouts that require **area naming**, like headers, sidebars, and content zones.
- When layout needs change **based on screen size**, and grid rearrangement helps.

Why NOT Bootstrap:

1. Show what Bootstrap classes would be needed

```
<div class="d-flex justify-content-center align-items-center vh-100">
  <div class="d-flex flex-column gap-3 w-25">
    <h2>Login</h2>
    <input type="text" class="form-control" placeholder="User ID">
    <input type="password" class="form-control" placeholder="Password">
    <button class="btn btn-primary">Login</button>
  </div>
</div>
```

2. Explain the extra overhead
   - Adds unnecessary **file size** — Bootstrap CSS alone is ~150KB minified.
   - Requires adding **external dependencies** (CDN or installed packages).
   - Brings **opinionated styles** that may conflict with custom designs.
   - For a simple form, built-in Flexbox handles layout more efficiently.

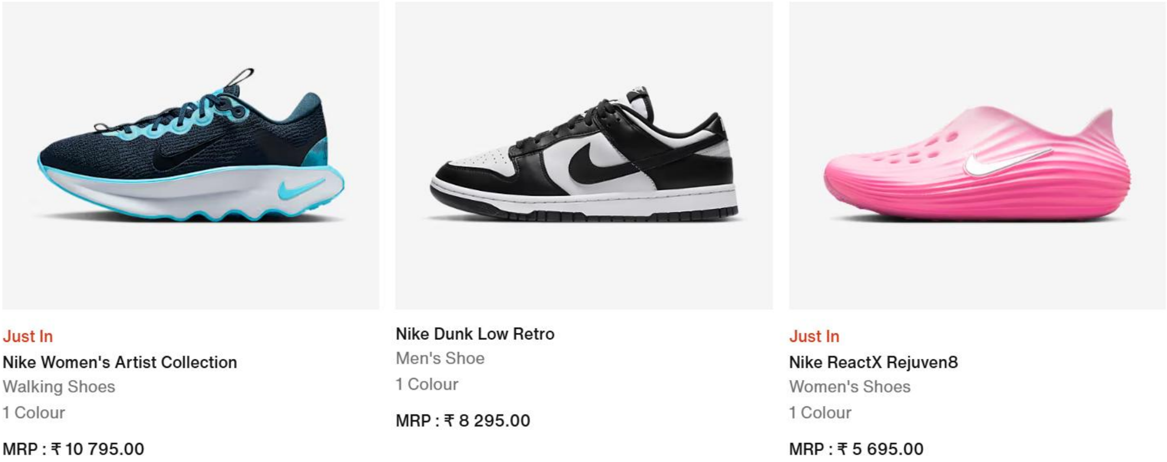
3.When WOULD Bootstrap be a good choice?

- When you need **many components**: modals, navbars, dropdowns, tooltips, etc.
- Projects where **design consistency** and **rapid prototyping** are critical.
- Teams already experienced with Bootstrap or working on large UI systems.

PART-4 REAL-WORLD APPLICATION

Task-4 Build alternative layouts

Reference:



Just In
Nike Women's Artist Collection
Walking Shoes
1 Colour
MRP : ₹ 10 795.00

Nike Dunk Low Retro
Men's Shoe
1 Colour
MRP : ₹ 8 295.00

Just In
Nike ReactX Rejuven8
Women's Shoes
1 Colour
MRP : ₹ 5 695.00

Version1: your flexbox-solution

Flexbox-login.html:

```
<!DOCTYPE html>

<html lang="en">


<head>

   <meta charset="UTF-8">

   <meta name="viewport" content="width=device-width, initial-scale=1.0">

   <title>Document</title>

   <link rel="stylesheet" href="./flexbox-login.css">
```

```
</head>

<body>
    <div class="container">
        <div class="card">
            <a href="#">
                <div class="obj-image">

                    <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/e16c84f0-9425-4d41-
9e58-850344121c07/WMNS+NIKE+MOTIVA+NBNW.png"
                        alt="shoe-pic1" height="350px" width="350px" />

                </div>
                <div class="brand-name">
                    <h5 style="color: rgb(227, 62, 62);">Just In</h5>
                </div>
                <div class="brand">
                   Nike Women's Artist Collection
                </div>
                <div class="content">
                    Walking Shoes
                </div>
                <div class="colour">1 Colour</div>
                <div class="price">
                    <p>MRP : ₹ 10 795.00</p>
                </div>
            </a>
        </div>
        <div class="card">
            <a href="#">
                <div class="obj-image">
```

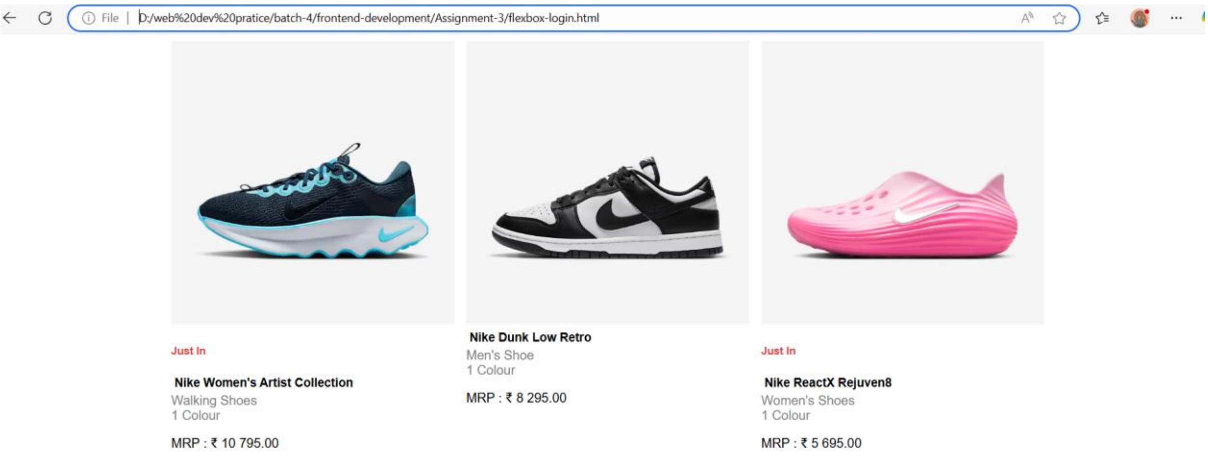
```
          <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/0f76f73e-2578-4d62-
abab-c5563ea4f78c/NIKE+DUNK+LOW+RETRO.png"
            alt="shoe-pic2" height="350px" width="350px" />
        </div>
        <div class="brand-name">

        </div>
        <div class="brand">
          Nike Dunk Low Retro
        </div>
        <div class="content">
          Men's Shoe
        </div>
        <div class="colour">1 Colour</div>
        <div class="price">
          <p>MRP : ₹ 8 295.00</p>
        </div>
      </a>
    </div>

    <div class="card">
      <a href="#">
        <div class="obj-image">
          <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/82a0aaf2-2f14-4427-
b445-41d797673f9e/WMNS+NIKE+REACTX+REJUVEN8.png"
            alt="shoe-pic3" height="350px" width="350px" />
        </div>
        <div class="brand-name">
          <h5 style="color: rgb(227, 62, 62);">Just In</h5>
        </div>
```

```
                <div class="brand">
                   Nike ReactX Rejuven8
                </div>
                <div class="content">
                    Women's Shoes
                </div>
                <div class="colour">1 Colour</div>
                <div class="price">
                    <p>MRP : ₹ 5 695.00</p>
                </div>
            </a>
        </div>

    </div>
</body>

</html>
```

Flexbox-login.css:

```
.container{
    display: flex;
    gap: 15px;
    justify-content: center;
    font-family: Arial, Helvetica, sans-serif;
}
a{
    text-decoration: none;
    color: black;
}

.brand{
    margin: 4px;
    font-size: 15px;
    font-weight: bold
}
.content,.colour{
    color: grey;
}
```

Output:



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Just In

Nike Women's Artist Collection
Walking Shoes
1 Colour

MRP : ₹ 10 795.00

Nike Dunk Low Retro
Men's Shoe
1 Colour

MRP : ₹ 8 295.00

Just In

Nike ReactX Rejuven8
Women's Shoes
1 Colour

MRP : ₹ 5 695.00

Version 2: CSS Grid Version:

Grid-login.html:

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="./grid-login.css">
</head>

<body>
    <div class="container">
        <div class="card">
```

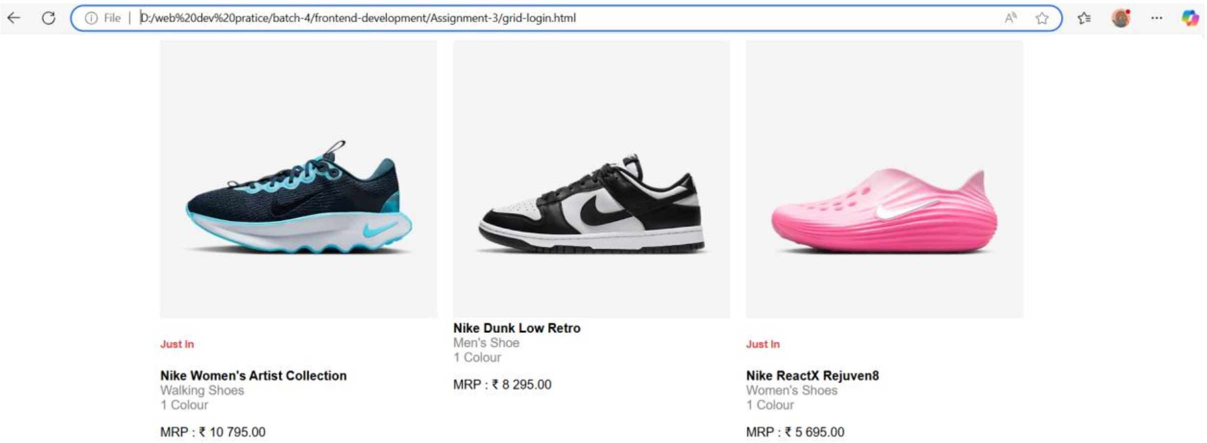
```
          <a href="#">
            <div class="obj-image">


              <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/e16c84f0-9425-4d41-
9e58-850344121c07/WMNS+NIKE+MOTIVA+NBNW.png"
                alt="shoe-pic1" height="350px" width="350px" />


            </div>
            <div class="brand-name">
              <h5 style="color: rgb(227, 62, 62);">Just In</h5>
            </div>
            <div class="brand">
             Nike Women's Artist Collection
            </div>
            <div class="content">
              Walking Shoes
            </div>
            <div class="colour">1 Colour</div>
            <div class="price">
              <p>MRP : ₹ 10 795.00</p>
            </div>
          </a>
        </div>
        <div class="card">
          <a href="#">
            <div class="obj-image">
              <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/0f76f73e-2578-4d62-
abab-c5563ea4f78c/NIKE+DUNK+LOW+RETRO.png"
                alt="shoe-pic2" height="350px" width="350px" />
            </div>
            <div class="brand-name">


            </div>
            <div class="brand">
              Nike Dunk Low Retro
            </div>
            <div class="content">
              Men's Shoe
            </div>
            <div class="colour">1 Colour</div>
            <div class="price">
              <p>MRP : ₹ 8 295.00</p>
            </div>
          </a>
        </div>


        <div class="card">
          <a href="#">
            <div class="obj-image">
              <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/82a0aaf2-2f14-4427-
b445-41d797673f9e/WMNS+NIKE+REACTX+REJUVEN8.png"
                alt="shoe-pic3" height="350px" width="350px" />
            </div>
            <div class="brand-name">
              <h5 style="color: rgb(227, 62, 62);">Just In</h5>
            </div>
            <div class="brand">
             Nike ReactX Rejuven8
            </div>
            <div class="content">
              Women's Shoes
```

```
                </div>
                <div class="colour">1 Colour</div>
                <div class="price">
                    <p>MRP : ₹ 5 695.00</p>
                </div>
            </a>
        </div>

    </div>
</body>

</html>
```

Grid-login.css:

```
.container{
    display: grid;
    justify-content: center;
    grid-template-columns: 370px 370px 370px;
    font-family: Arial, Helvetica, sans-serif;
}
a{
    text-decoration: none;
    color: black;
}
.brand{
    font-weight: bold;
}
.content, .colour{
    color: grey;
}
```

Output:



File | D:/web%20dev%20pratice/batch-4/frontend-development/Assignment-3/grid-login.html

Just In

Nike Women's Artist Collection
Walking Shoes
1 Colour

MRP : ₹ 10 795.00

Nike Dunk Low Retro
Men's Shoe
1 Colour

MRP : ₹ 8 295.00

Just In

Nike ReactX Rejuven8
Women's Shoes
1 Colour

MRP : ₹ 5 695.00

Version-3: No flexbox Version

Old-school-login.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="./old-school-login.css">
</head>

<body>
    <div class="container">
        <div class="card">
            <a href="#">
                <div class="obj-image">

                    <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/e16c84f0-9425-4d41-9e58-850344121c07/WMNS+NIKE+MOTIVA+NBNW.png"
                        alt="shoe-pic1" height="350px" width="350px" />

                </div>
                <div class="brand-name">
                    <h5 style="color: rgb(227, 62, 62);">Just In</h5>
                </div>
                <div class="brand">
                    Nike Women's Artist Collection
                </div>
                <div class="content">
                    Walking Shoes
                </div>
                <div class="colour">1 Colour</div>
                <div class="price">
                    <p>MRP : ₹ 10 795.00</p>
                </div>
            </a>
        </div>
        <div class="card">
            <a href="#">
                <div class="obj-image">
                    <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/0f76f73e-2578-4d62-
abab-c5563ea4f78c/NIKE+DUNK+LOW+RETRO.png"
                        alt="shoe-pic2" height="350px" width="350px" />
                </div>
                <div class="brand-name">


                </div>
                <div class="brand">
                    Nike Dunk Low Retro
                </div>
                <div class="content">
                    Men's Shoe
                </div>
```

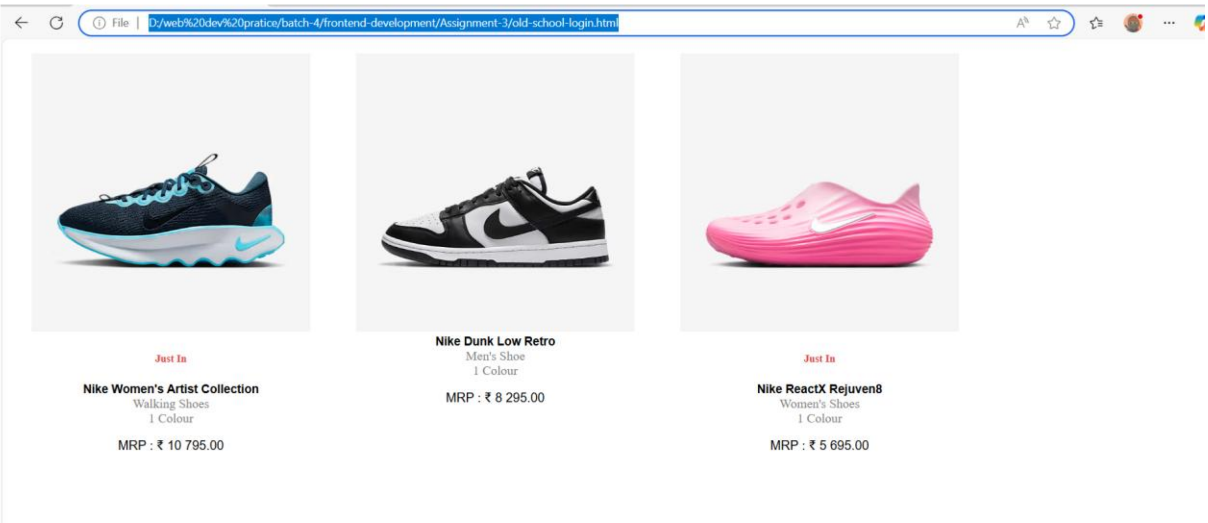
```
                <div class="colour">1 Colour</div>

                <div class="price">

                    <p>MRP : ₹ 8 295.00</p>

                </div>

            </a>

        </div>

        <div class="card">

            <a href="#">

                <div class="obj-image">

                    <img
src="https://static.nike.com/a/images/c_limit,w_592,f_auto/t_product_v1/82a0aaf2-2f14-4427-
b445-41d797673f9e/WMNS+NIKE+REACTX+REJUVEN8.png"

                        alt="shoe-pic3" height="350px" width="350px" />

                </div>

                <div class="brand-name">

                    <h5 style="color: rgb(227, 62, 62);">Just In</h5>

                </div>

                <div class="brand">

                   Nike ReactX Rejuven8

                </div>

                <div class="content">

                    Women's Shoes

                </div>

                <div class="colour">1 Colour</div>

                <div class="price">

                    <p>MRP : ₹ 5 695.00</p>

                </div>

            </a>

        </div>


    </div>

</body>
```

```
</html>
```

Old-school-login.css:

```
.container{
    text-align: center;
}
.card{
    float: left;
    padding: 10px 15px;
    width: 25%;
}

a{
    text-decoration: none;
    color: black;
}
.brand{
    font-family: Arial, Helvetica, sans-serif;
    font-weight: bold;
    font-size: 15px;
}
.content, .colour{
    color: grey;
}
.price{
    font-family: Arial, Helvetica, sans-serif;
}
```

Output:



D:/web%20dev%20pratice/batch-4/frontend-development/Assignment-3/old-school-login.html

Just In

Nike Women's Artist Collection

Walking Shoes

1 Colour

MRP : ₹ 10 795.00

Nike Dunk Low Retro

Men's Shoe

1 Colour

MRP : ₹ 8 295.00

Just In

Nike ReactX Rejuven8

Women's Shoes

1 Colour

MRP : ₹ 5 695.00