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<https://www.facebook.com/learnbybhanupratap/>

<https://www.udemy.com/seleniumbybhanu>

YouTube Channel: learnbybhanu



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**About Me:**


My Name is Bhanu Pratap Singh.

Well I'm basically from Muzaffarpur Bihar.

I did my engineering from BIT Bangalore and currently work as a software engineer.

**Facebook Page:**

 <https://www.facebook.com/learnbybhanupratap>

 **You Tube Channel:**  
learnbybhanu

**Udemy:**

 <https://www.udemy.com/javabybhanu/>

 <https://www.udemy.com/seleniumbybhanu/>

**GitHub URL:**

 <https://github.com/learnbybhanupratap>

*Always play video at 720 to have better visibility.  
Subscribe you tube channel and like Facebook page to get  
All notification.*

## What is Locator?

The locator can be termed as an address that identifies a web element uniquely within the webpage. Locators are the HTML properties of a web element which tells the Selenium about the web element it needs to perform the action on.

Selenium webdriver uses 8 locators to find the elements on web page. The following are the list of object identifier or locators supported by selenium.

**We have prioritized the list of locators to be used when scripting.**

**id** Select element with the specified **@id** attribute.

**Name** Select first element with the specified **@name** attribute.

**Linktext** Select link (anchor tag) element which contains text matching the specified link text

**Partial Linktext** Select link (anchor tag) element which contains text matching the specified partial link text

**Tag Name** Locate Element using a Tag Name .

**Class name** Locate Element using a class Name ..

**Css** Select the element using css selectors.

**Xpath** *Locate an element using an XPath expression.*

## X Path

### Syntax

// TagName[@Attribute Name='attribute Value']

### Types of X Path

1. **Native Xpath**, it is like directing the xpath to go in direct way. like

**Example:**

html/head/body/table/tr/td

2. **Relative Xpath.**

In relative xpath we will provide the relative path, it is like we will tell the xpath to find an element by telling the path in between.

Advantage here is, if at all there is any change in the html that works fine, until unless that particular path has changed. Finding address will be quite difficult as it need to check each and every node to find that path.

**Example:**

//table/tr/td

### For CSS

Attribute	Symbol Used
User ID	use # symbol
Using Class Name	Use . symbol
Using attribute	tagname[attribute='value']
Using Multiplr attribute	tagname[attribute1='value1'][attribute2='value2']
Contains	*symbol
Starts with	^ symbol
Ends with	\$ sybmol

Application URL:

<https://www.facebook.com/?>

HTML

```
<input type="email" class="inputtext" name="email" id="email" value="" tabindex="1" data-testid="royal_email">
```

#### X Path

```
//input[@id='email']  
//input[@class='inputtext' and @id='email']  
//input[@name='email']  
//input[@data-testid='royal_email']
```

#### CSS:

```
#email  
input[id='email']  
input[class='inputtext'][id='email']  
input[name='email']  
input[data-testid='royal_email']
```

#### HTML

```
<input type="password" class="inputtext" name="pass" id="pass" tabindex="2" data-testid="royal_pass">
```

#### X Path

```
//input[@type='password' and @name='pass']  
//input[@id='pass']  
//input[@data-testid='royal_pass']  
//input[@data-testid='royal_pass' and @id='pass' and @name='pass']
```

#### CSS

```
input[type='password'][name='pass']  
#pass  
input[data-testid='royal_pass']  
input[data-testid='royal_pass'][id='pass'][name='pass']
```

#### HTML

```
<div class="_ihd _3ma mbs _6n _6s _6v">Create a new account</div>
```

#### X Path

```
//div[text()='Create a new account']
```

#### HTML

```
<input type="text" class="inputtext _58mg _5dba _2ph-" data-type="text" name="reg_email__" aria-required="1" placeholder="" aria-label="Mobile number or email address" id="u_0_q" role="button">
```

#### X Path:

```
//input[@name='reg_email__']
```

```
//input[@aria-label='Mobile number or email address']
```

#### CSS:

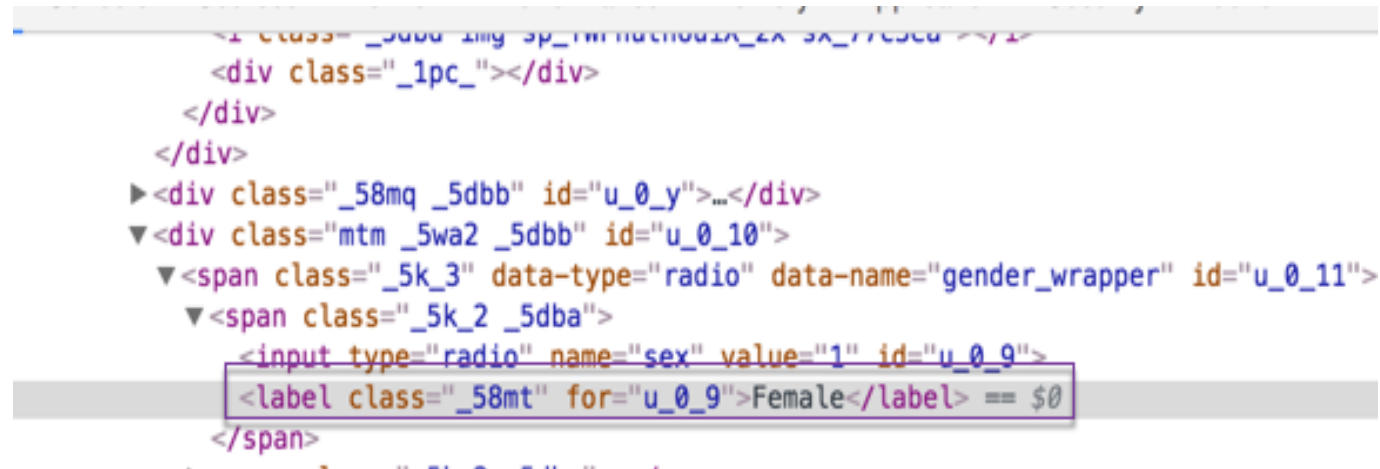
```
input[name='reg_email__']
```

```
input[aria-label='Mobile number or email address']
```

```
input[class^='inputtext'][name='reg_email__']
```

```
input[aria-label$='or email address']
```

#### HTML



#### X Path

```
//span[@data-name='gender_wrapper']/span[1]/label
```

```
//label[contains(text(),'Female')]
```

#### CSS

```
span[data-name='gender_wrapper']>:nth-child(1)>:nth-child(2)
```

#### HTML:

```
<a class="_58ms m1m _5f0v" id="birthday-help" href="#" title="Click for more information" role="button" aria-describedby="js_uh" tabindex="0">Why do I need to provide my date of birth?</a>
```

#### X Path

```
//a[@title='Click for more information']
```

```
//a[@id='birthday-help']
```

```
//a[contains(text(),'Why do I need to provide my date of birth?')]
```

#### CSS:

```
a[title='Click for more information']
```

```
#birthday-help
```

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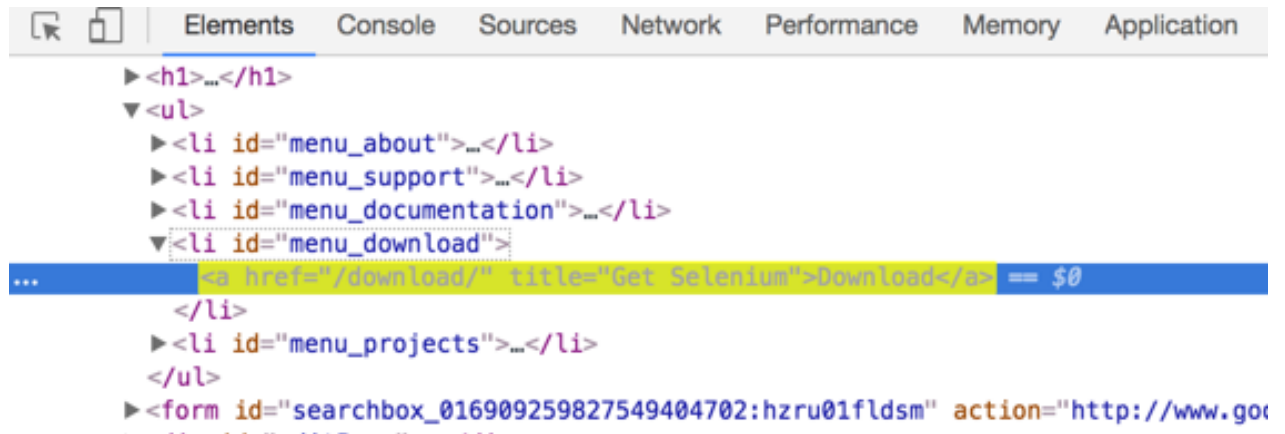
<https://www.udemy.com/seleniumbybhanu>

YouTube Channel: learnbybhanu

Application URL:

<https://www.seleniumhq.org/download/>

HTML



Download

X Path

//a[@href='/download/' and @title='Get Selenium']

//a[@title='Get Selenium']

//li[@id='menu\_download']/a

CSS

a[href='/download/'][title='Get Selenium']

a[title='Get Selenium']

li[id='menu\_download']>a

#menu\_download>a

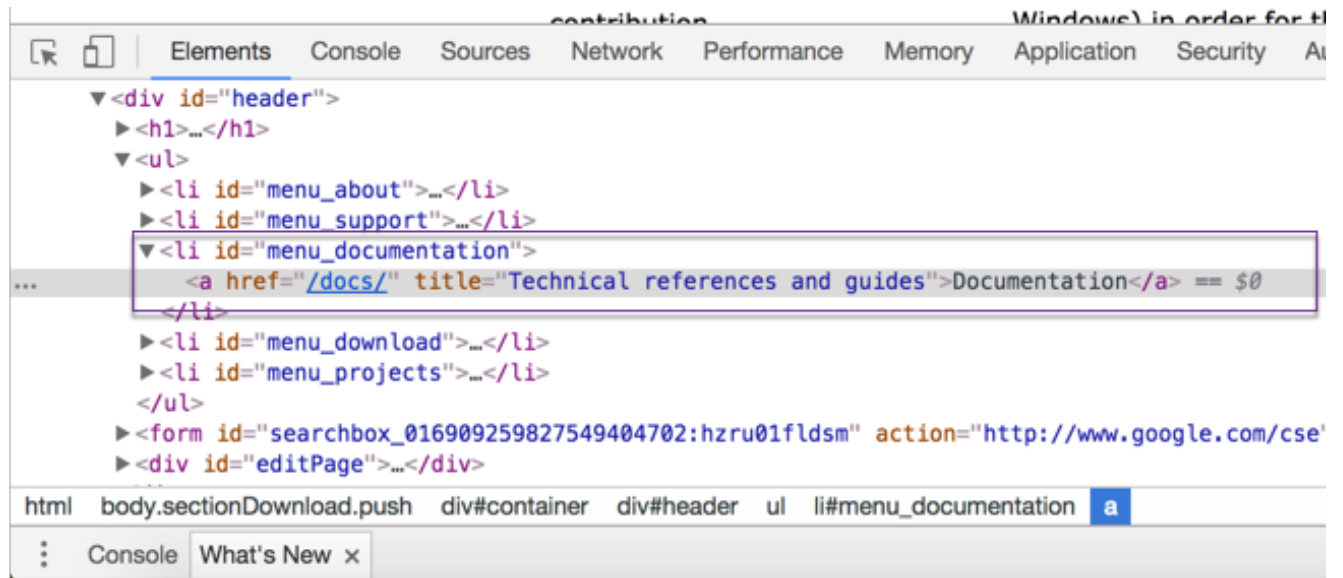
HTML

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## Documentation

### X Path

//a[@href='/docs/' and @title='Technical references and guides']

//a[@title='Technical references and guides']

//li[@id='menu\_documentation']/a

### CSS

a[href='/docs/'][title='Technical references and guides']

a[title='Technical references and guides']

li[id='menu\_documentation']>a

#menu\_documentation>a

## How to get all common li

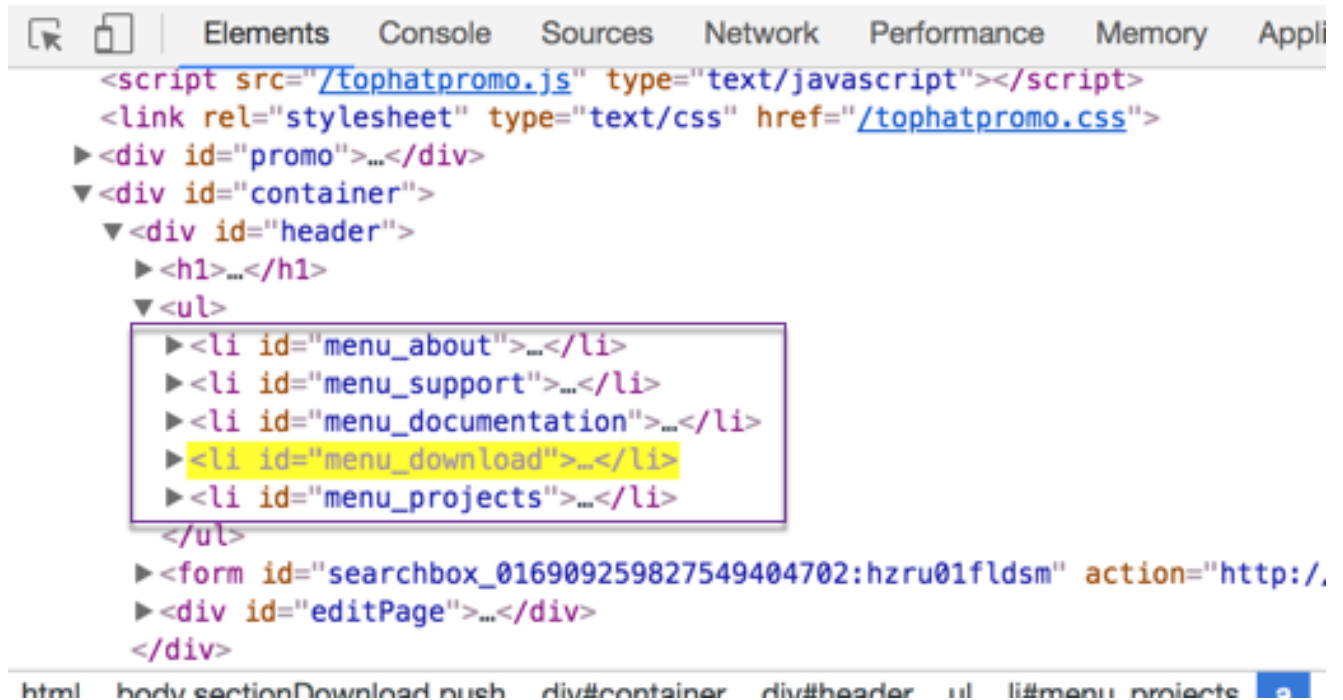
### HTML

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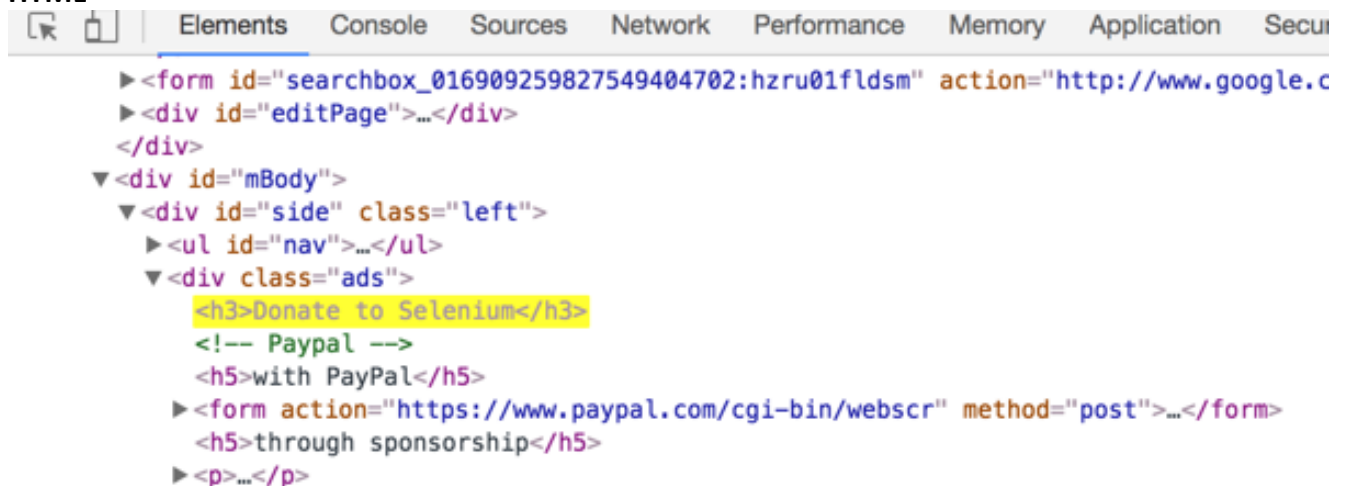
### X Path

//div[@id='header']/ul/li

### CSS

div[id='header']>ul>li

### HTML



### Donate to Selenium

#### X Path

//h3[contains(text(),'Donate to Selenium')]

//div[@class='ads']/h3[contains(text(),'Donate to Selenium')]

//div[@id='mBody']/div/div[1]/h3[1]

//h3[text()='Donate to Selenium']

## CSS

.ads>:nth-child(1)

#mBody>:nth-child(1)>:nth-child(2)>:nth-child(1)

## Application URL:

<https://www.actitime.com/download>

## HTML:

```
<html lang="en">
  <head>...</head>
  <body class="c-layout-header-fixed c-layout-header-mobile-fixed">
    <header class="header">
      <div class="header__container">
        <a href="/" class="header__logo"></a>
        <nav class="main-menu header__item">
          <ul class="main-menu__ul">
            <li class="main-menu__item">...</li>
            <li class="main-menu__item main-menu__item--parent">...</li>
            <li class="main-menu__item">...</li>
            <li class="main-menu__item main-menu__item--parent">...</li>
            <li class="main-menu__item main-menu__item--parent">...</li>
            <li class="main-menu__item main-menu__item--parent">...</li>
          </ul>
        </nav>
      </div>
    </header>
  </body>
</html>
```

## How to get all li through reference of Parent Node

### X Path:

//div[@class='header\_\_container']/nav/ul/li[1]

//div[@class='header\_\_container']/nav/ul/li[2]

//div[@class='header\_\_container']/nav/ul/li[3]

//div[@class='header\_\_container']/nav/ul/li[4]

## CSS:

.header\_\_container>nav>ul>:nth-child(1)

.header\_\_container>nav>ul>:nth-child(2)

.header\_\_container>nav>ul>:nth-child(3)

.header\_\_container>nav>ul>:nth-child(4)

## HTML:



```
▼<header class="header">
  ▼<div class="header__container">
    <a href="/" class="header__logo"></a>
    ▼<nav class="main-menu header__item">
      ▼<ul class="main-menu__ul">
        ▼<li class="main-menu__item ">
          ... <a class="main-menu__link" href="/about-actitime">Why actiTIME</a> == $0
          </li>
          ▼<li class="main-menu__item main-menu__item--parent ">
            <a class="main-menu__link" href="/features">Features</a>
            ►<ul class="sub-menu">...</ul>
            <div class="main-menu__click-adaptive"></div>
            ::after
          </li>
          ▼<li class="main-menu__item ">
            <a class="main-menu__link" href="/purchase">Purchase</a>
          </li>
          ▼<li class="main-menu__item main-menu__item--parent ">
            <a class="main-menu__link" href="/testimonials">Clients</a>
            ►<ul class="sub-menu">...</ul>
            <div class="main-menu__click-adaptive"></div>
            ::after
          </li>
          ▼<li class="main-menu__item main-menu__item--parent ">
            <a class="main-menu__link" href="/blog">Productivity Talks</a>
            ►<ul class="sub-menu">...</ul>
            <div class="main-menu__click-adaptive"></div>
            ::after
          </li>
          ►<li class="main-menu__item main-menu__item--parent ">...</li>
        </ul>
```

## Following-Sibling, Preceding-sibling, Child, Parent Concepts in Selenium

### Child Example:

X path

### To Locate nav in HTML

```
//div[@class='header__container']/child::nav
```

### To Locate ul in HTML

```
//div[@class='header__container']/child::nav/child::ul
```

### To Locate third li in HTML

```
//div[@class='header__container']/child::nav/child::ul/child::li[3]
```

Why actiTIME

Features ▾

Purchase

Clients ▾

Productivity Talks ▾

Help Center ▾

### Following sibling example

#### To Locate Features

```
//a[contains(text(),'Features')]
```

#### To Locate Purchase with Reference of Features

```
//a[contains(text(),'Features')]/parent::* /following-sibling::li[1]/a
```

#### To Locate Clients with Reference of Features

```
//a[contains(text(),'Features')]/parent::* /following-sibling::li[2]/a
```

### Preceding sibling example

#### To Locate Clients

```
//a[contains(text(),'Clients')]
```

#### To Locate Features with Reference of Clients

```
//a[contains(text(),'Clients')]/parent::* /preceding-sibling::li[2]/a
```

#### To Locate Purchase with Reference of Clients

```
//a[contains(text(),'Clients')]/parent::* /preceding-sibling::li[1]/a
```

### Application:

<https://book.spicejet.com/Register.aspx>

```
▶ <div>...</div>
▶ <div class="signup-field-wrapper">...</div>
▼ <div class="select-mr fields-container">
  ▶ <div>...</div>
  ▼ <div>
    ▶ <select id="CONTROLGROUPREGISTerview_PersonInputRegisterView_DropDownListTitle"
      "CONTROLGROUPREGISTerview$PersonInputRegisterView$DropDownListTitle" tabindex="0">
      </div>
    </div>
  </div>
```

## CSS

### start-with

select[name^='CONTROLGROUPREGISTerview\$PersonInput']

select[name^='CONTROLGROUPREGISTerview\$PersonInput']

### ends-with

select[name\$='PersonInputRegisterView\$DropDownListTitle']

select[name\$='PersonInputRegisterView\$DropDownListTitle']

## X Path

//select[starts-with(@id,'CONTROLGROUPREGISTerview')]

## Application:

<https://www.tirerack.com/content/tirerack/desktop/en/homepage.html>

Elements	X Path
Tires	//*[@id='pageLinks']/ul/li[1]/div/div/a
Wheels	//*[@id='pageLinks']/ul/li[2]/div/div/a
Parts & Accessories	//*[@id='pageLinks']/ul/li[3]/div/div
Research & Advice	//*[@id='pageLinks']/ul/li[4]/div/div/a
Delivery & Installation	//*[@id='pageLinks']/ul/li[5]/div/div/a
Why Tire Rack?	//*[@id='header']/div/div[1]/div/div[2]/ul/div/li[1]/a
Order Tracking	//*[@id='header']/div/div[1]/div/div[2]/ul/div/li[2]/a

Customer Support	//*[@id='header']/div/div[1]/div/div[2]/ul/div/li[3]/a
phoneNumber	//*[@id='phoneNumber']
Log In / Create Account	//*[@id='header']/div/div[1]/div/div[2]/ul/li[1]/div/div[2]/div
Select Make	//*[@id='shopByVehicle-search-change']/div[1]/div[1]/button
Select Year	//*[@id='shopByVehicle-search-change']/div[1]/div[2]/button
Select Model	//*[@id='shopByVehicle-search-change']/div[1]/div[3]/button
zipCheck	//*[@id='shopByVehicle-search-change']/div[4]/input
Choose Your Product Category	//*[@id='shopByVehicle-search-change']/div[7]/div/div/button

Elements	CSS
Tires	#pageLinks>ul>:nth-child(1)>div>div>a
Wheels	#pageLinks>ul>:nth-child(2)>div>div>a
Parts & Accessories	#pageLinks>ul>:nth-child(3)>div>div>a
Research & Advice	#pageLinks>ul>:nth-child(4)>div>div>a
Delivery & Installation	#pageLinks>ul>:nth-child(5)>div>div>a
Why Tire Rack?	.utilitynav.utility-nav>:nth-child(1)>a
Order Tracking	.utilitynav.utility-nav>:nth-child(2)>a
Customer Support	.utilitynav.utility-nav>:nth-child(3)>a
phoneNumber	#phoneNumber
Log In / Create Account	.log

Select Make	.select4Set.clearafter>:nth-child(1)>button>div
Select Year	.select4Set.clearafter>:nth-child(2)>button>div
Select Model	.select4Set.clearafter>:nth-child(3)>button>div
zipCheck	.zip-code.zip-code-input
Choose Your Product Category	.row.oneField>div>div

## Application

<https://www.facebook.com/?>

## CSS

Facebook	
First Name	input[name='firstname'] input[class^="inputtext"][name="firstname"]
Surname	input[name='lastname']
Mobile Nuner or Email Address	[aria-label="Mobile number or email address"]
Re-enter Mobile Number	[type="text"][aria-label="Re-enter mobile number or email address"]
New Password	[type="password"][aria-label="New password"]
Day	#day [title="Day"][name="birthday_day"][aria-label="Day"]
Month	[title="Day"][name="birthday_day"][aria-label="Day"]+select
Year	[title="Day"][name="birthday_day"][aria-label="Day"]+select+select
Why doo I need to provide my DOB	[title\$="more information"]
Female	span[data-name="gender_wrapper">>:nth-child(1)>:nth-child(2)
Male	span[data-name="gender_wrapper">>:nth-child(2)>:nth-child(2)

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Female	<code>span[data-name="gender_wrapper"]&gt;:first-child</code>
Male	<code>span[data-name="gender_wrapper"]&gt;:last-child</code>