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Step 10 of 12

Hands-on Lab: Creating a Simple Web page

Effort: 25 min

You are a web developer and part of the fan club for IBM founder **Thomas J. Watson Sr.**, who has approached you to create a web page for them.
In this lab, We'll create a web page with details of Mr.Watson.

Objectives

After this exercise, you will be able to do the following:

```
1. Create a new HTML document
2. Specify DOCTYPE
3. Add the head and body elements
4. Add a title
5. Add a heading
6. Add a paragraph
7. Add an image
8. Create a list of items
9. Add a table of data
10. Add Links to other pages
```

Create a new HTML document

Open VS Code. On the window to the right, click on the **File** menu and select **New File** option, as shown in the image below.
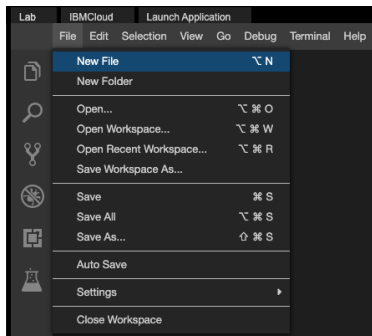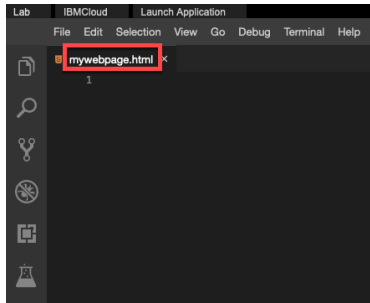

A pop up appears with title **New File**, as shown in the image below.
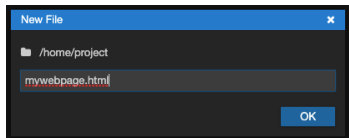
Enter "mywebpage.html" as the file name and click **OK**.

A file "mywebpage.html" will be created for you.
Every line of html you write from now on will be saved into this file.

You are now ready to start creating your web page.

Specify

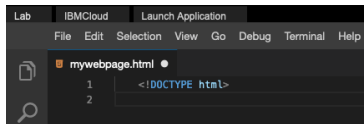All HTML documents start with the declaration.

This line tells the web browser that the file contains HTML code. This is *not* an HTML tag.

This line is specified as follows:

```
<!DOCTYPE html>
```

Type the above code in the html file you created in the previous step.

Or you may copy and paste it into your file.

Add the `<head>` and `<body>` elements

Now that we've added the doctype, let's begin adding the html code.

An HTML file begins with the `<html>` tag and ends with `</html>` tag.

The HTML document has a *head* and a *body*

The `<head>` tag defines the metadata about the page, which is used by browsers and search engines.

This information may include the document title, character set, styles to be used, scripts etc., Contents of `<head>` section are *not* displayed to the user.

The `<body>` tag defines the document body, and contains all the visible contents like headings, paragraphs, images, links, tables etc.

The skeleton of an HTML document looks like this:

Add the code below to your file.

```
<html>
<head>

</head>
<body>

</body>
</html>
```

Add a title

The title of the page appears on the browser tab, when you open it in the browser.

We define it using the `<title>` tag, which will be added in the `<head>` section.

Now, let us define our document using these elements.

Type the below code inside the `<head>` section.

```
<title>Thomas J. Watson Sr -  Fan Page</title>
```

Your code should look like this.

```
<!DOCTYPE html>
<html>
<head>
    <title>Thomas J. Watson Sr -  Fan Page</title>
```

```
</head>
<body>

</body>
</html>
```

Add a heading to the page

To add a heading, we use the `<h1>` tag.

Type the below code in the `<body>` section.

```
<h1> Thomas J. Watson </h1>
```

Your code should look like this.

```
<!DOCTYPE html>
<html>
<head>
    <title>Thomas J. Watson Sr -  Fan Page</title>
</head>
<body>
    <h1>Thomas J. Watson </h1>
</body>
</html>
```

Go to the **File** menu and click on **Save** to save your code.
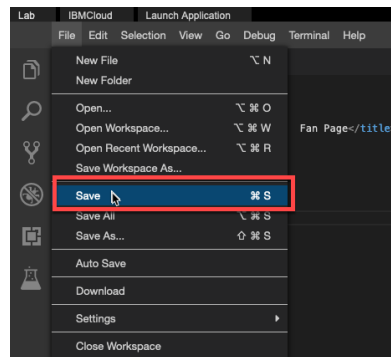
To preview your file, you can use Live server.

Instructions to preview a file using Live Server:

    1. Right click on your file & click on 'Open with Live Server'

| Lab | IBMCloud | Launch Application |

| File | Edit | Selection |

Open with Live Server

EXPLORER: PROJECT

🗋 mywebpage.html

New File   ⌥ N
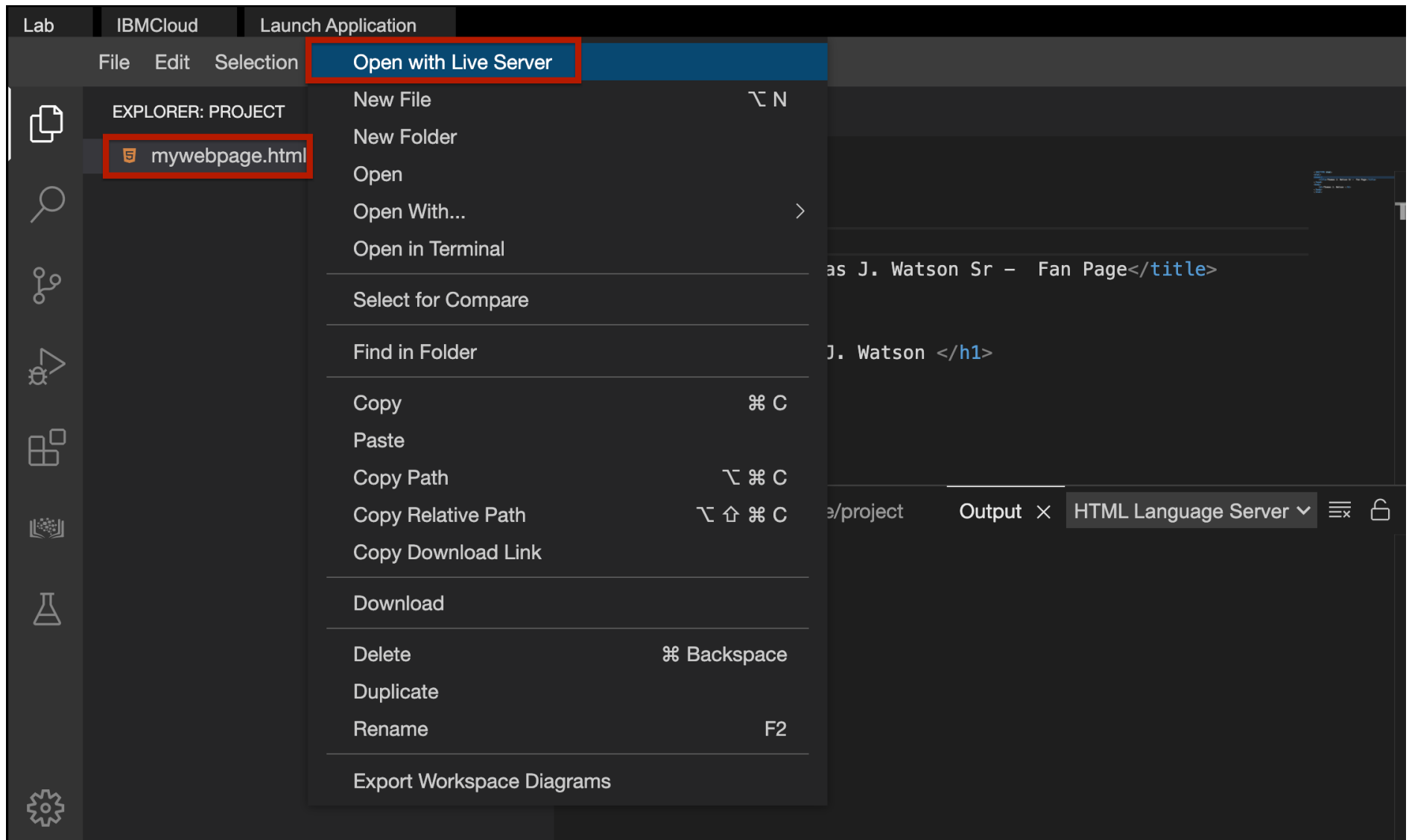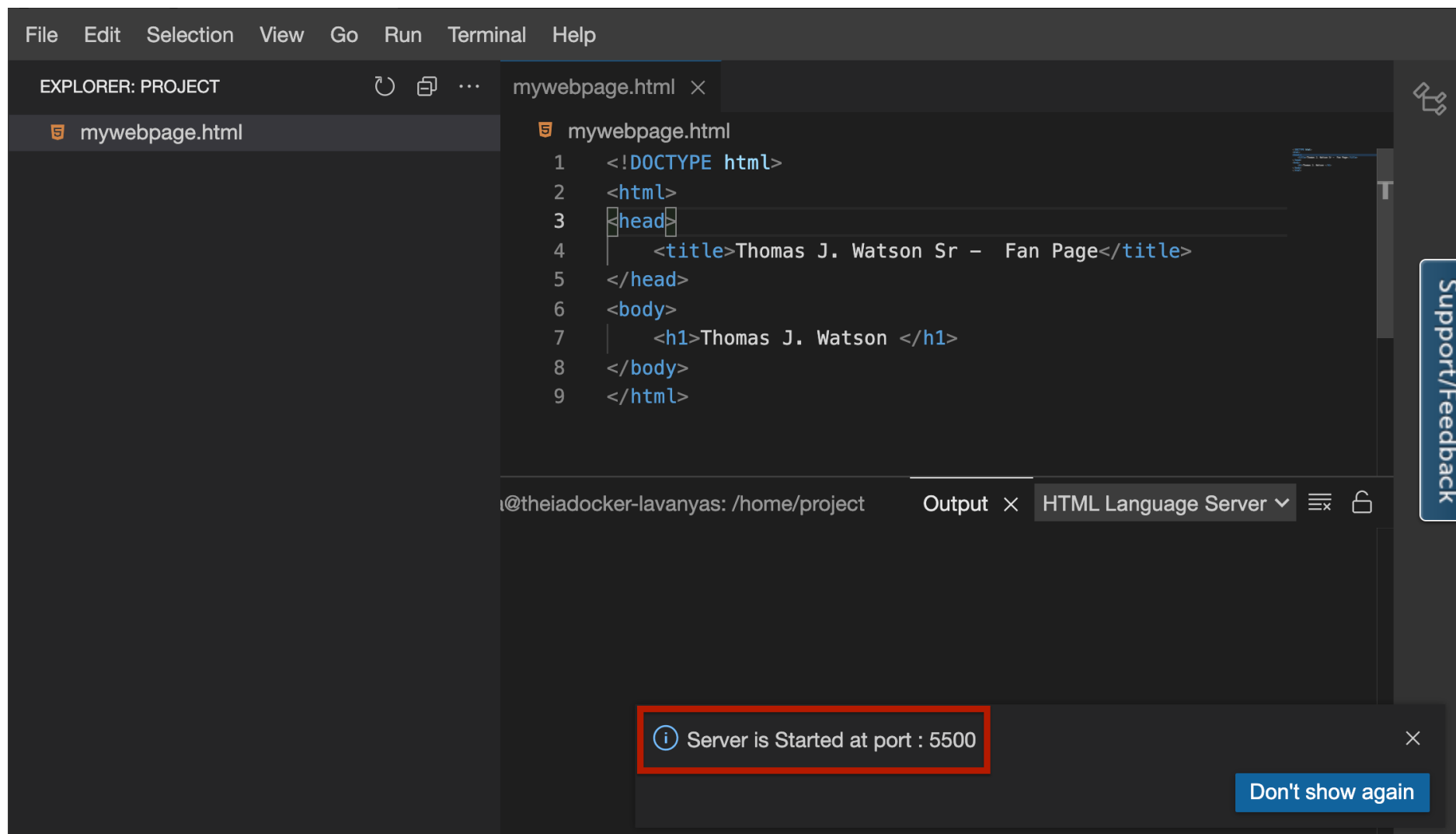
New Folder

Open

Open With...   ›

Open in Terminal

as J. Watson Sr – Fan Page</title>

Select for Compare

Find in Folder   J. Watson </h1>

Copy   ⌘ C

Paste

Copy Path   ⌥ ⌘ C

Copy Relative Path   ⌥ ⇧ ⌘ C   e/project   Output ✕   HTML Language Server ⌄

Copy Download Link

Download

Delete   ⌘ Backspace

Duplicate

Rename   F2

Export Workspace Diagrams

2. This should show notifications mentioning that the server has started on port 5500 & is Live.

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER: PROJECT

mywebpage.html ×

mywebpage.html

```
1   <!DOCTYPE html>
2   <html>
3   <head>
4       <title>Thomas J. Watson Sr –  Fan Page</title>
5   </head>
6   <body>
7       <h1>Thomas J. Watson </h1>
8   </body>
9   </html>
```

Support/Feedback

@theiadocker-lavanyas: /home/project   Output ×   HTML Language Server ⌄

(i) Server is Started at port : 5500   ×
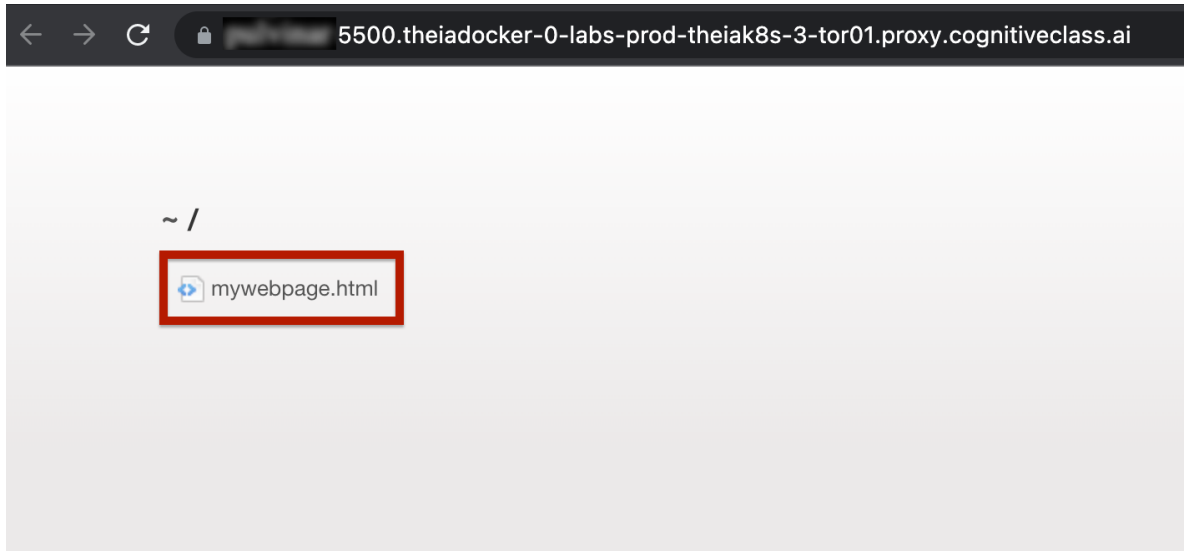
Don't show again

3. Click on Launch application & enter the port no. as 5500
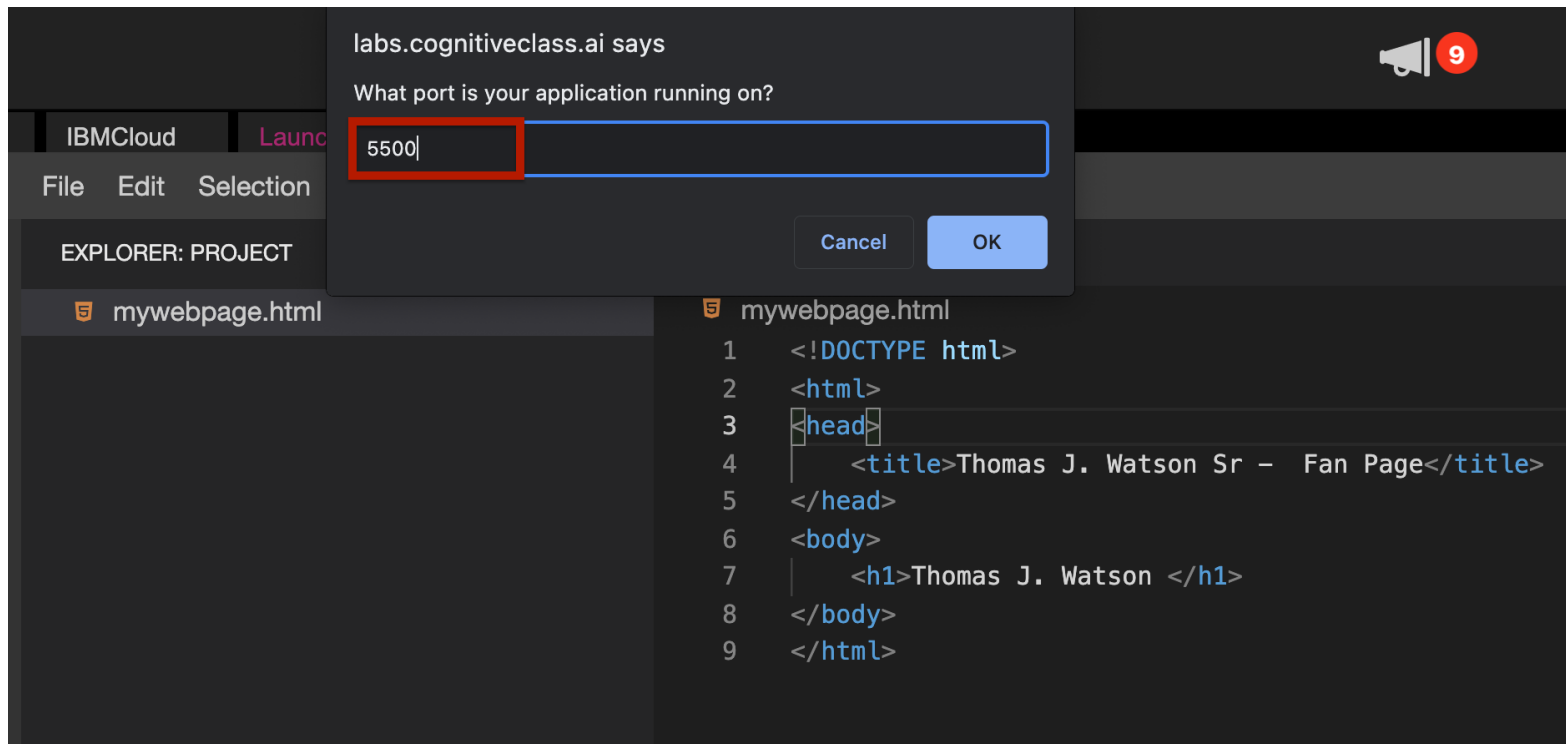
4. This will open your file on a new window in your local browser.

(Note – If you get a pop-up block alert, please allow pop-ups & do repeat Step 3 again)

5. Click on the file name to view its preview.

Add a Paragraph

Now, let's add a short description.

The tag `<p>` is used to defne a paragraph.

In this example, we'll add a few lines about Thomas J. Watson.

Type the below code after the `<h1>` heading .

```
<p>Thomas J. Watson, Sr. is the American industrialist, who built the International Business Machines Corporation (IBM) into the largest manufacturer of electric typewriters and data-processing equipment in the world.
</p>
```

Your code should look like this now.

```
<!DOCTYPE html>
<html>
<head>
    <title>Thomas J. Watson Sr -  Fan Page</title>
</head>
<body>
    <h1>Thomas J. Watson </h1>
    <p>Thomas J. Watson, Sr. is the American industrialist, who built the International Business Machines Corporation (IBM) into the largest manufacturer of electric typewriters and data-processing equipment in the world.
    </p>
</body>
</html>
```

Go to the **File** menu and click on **Save** to save your code.

The resulting web page looks like this.
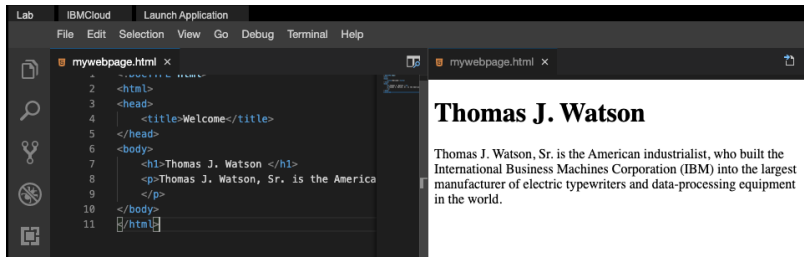
Add an Image

`<img>` tag is used to add an image.

Let's add an image of Thomas J. Watson after the heading.
To add an image you need to know the image file name and mention it in the 'src' attribute.
  The 'src' attribute specifies an external resource that you want to link, such as the URL of an image.
You can optionally specify how many pixels the width and height of the image should be.
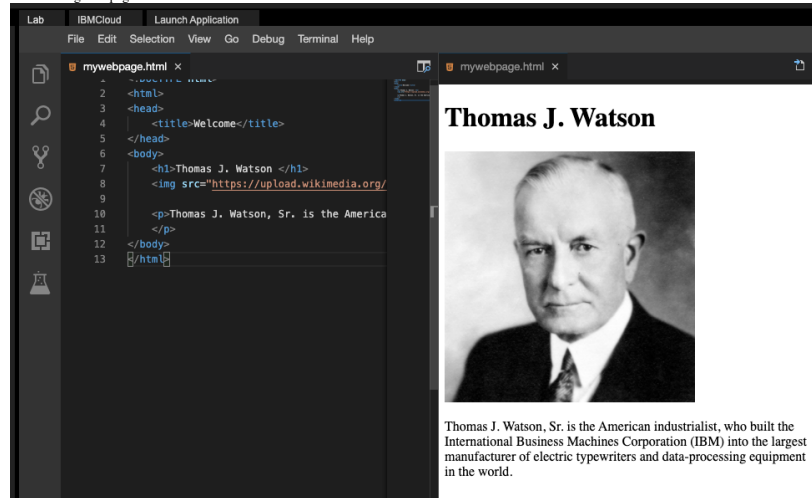Type the below code after the `<h1>` heading .

```
<img src="https://upload.wikimedia.org/wikipedia/commons/7/7e/Thomas_J_Watson_Sr.jpg" width="300" height="300">
```

Your code should look like this now.

```
<!DOCTYPE html>
<html>
<head>
    <title>Thomas J. Watson Sr -  Fan Page</title>
</head>
<body>
    <h1>Thomas J. Watson </h1>
    <img src="https://upload.wikimedia.org/wikipedia/commons/7/7e/Thomas_J_Watson_Sr.jpg" width="300" height="300">

    <p>Thomas J. Watson, Sr. is the American industrialist, who built the International Business Machines Corporation (IBM) into the largest manufacturer of electric typewriters and data-processing equipment in the world.
    </p>
</body>
</html>
```

Go to the **File** menu and click on **Save** to save your code.

The resulting web page looks like this.

Create a List

To create a list of items, we can use the `<ol>` tag for numbered lists, and `<ul>` for bulleted lists.

Let's add a few more lines of information about Mr. Watson in the form of a list , after the main paragraph.

Type the below code after the `<p>` paragraph.

```
<ul>
    <li>In 1939, he received an honorary degree in Doctor of Commercial Science from Oglethorpe University. </li>
    <li>In 1940s, Watson was on the national executive board of the Boy Scouts of America. </l>
    <li>Watson served as a trustee of Columbia University from June 6, 1933, until his death. </li>
    <li>He was posthumously inducted into the Junior Achievement U.S. Business Hall of Fame in 1990.</li>
</ul>
```

Your code should look like this now.

```
<!DOCTYPE html>
<html>
<head>
    <title>Thomas J. Watson Sr -  Fan Page</title>
</head>
<body>
    <h1>Thomas J. Watson </h1>
    <img src="https://upload.wikimedia.org/wikipedia/commons/7/7e/Thomas_J_Watson_Sr.jpg" width="300" height="300">

    <p>Thomas J. Watson, Sr. is the American industrialist, who built the International Business Machines Corporation (IBM) into the largest manufacturer of electric typewriters and data-processing equipment in the world.
    </p>
    <ul>
        <li>In 1939, he received an honorary degree in Doctor of Commercial Science from Oglethorpe University. </li>
        <li>In 1940s, Watson was on the national executive board of the Boy Scouts of America. </l>
        <li>Watson served as a trustee of Columbia University from June 6, 1933, until his death. </li>
        <li>He was posthumously inducted into the Junior Achievement U.S. Business Hall of Fame in 1990.</li>
    </ul>
</body>
</html>
```
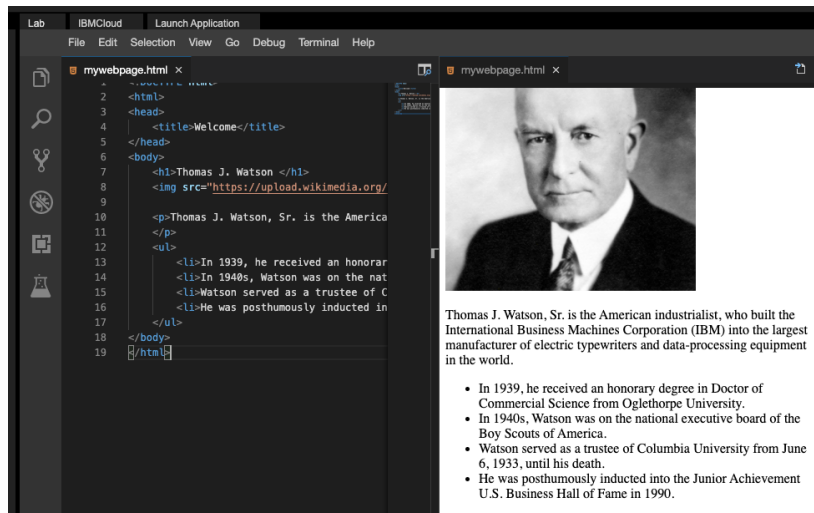
Go to the **File** menu and click on **Save** to save your code.

The resulting page looks like this.

Add a Table

A table is created using the `<table>` tag.

Within the table, each row of data is represented using the `<tr>` tag.

The column or row headings can be specified by `<th>` element.

Finally, each data element within the table cells is specified using the `<td>` tag.

Let's add a heading and a table with three rows and two columns.

Type the below code after the `</ul>` tag.

```
<h1>IBM Growth Over Years: </h1>
    <table>
        <tr>
            <th>Year </th>
            <th>No. of Employees </th>
            <th>Gross Income (In m$) </th>
        </tr>
        <tr>
            <td>1925</td>
            <td>3698</td>
            <td>13</td>
        </tr>
        <tr>
            <td>1930</td>
            <td>6346</td>
            <td>19 </td>
        </tr>
        <tr>
            <td>1935</td>
            <td>8651</td>
            <td>21</td>
        </tr>

    </table>
```

Your code should look like this now.

```
<!DOCTYPE html>
<html>
<head>
    <title>Thomas J. Watson Sr -  Fan Page</title>
</head>
<body>
    <h1>Thomas J. Watson </h1>
    <img src="https://upload.wikimedia.org/wikipedia/commons/7/7e/Thomas_J_Watson_Sr.jpg" width="300" height="300">

    <p>Thomas J. Watson, Sr. is the American industrialist, who built the International Business Machines Corporation (IBM) into the largest manufacturer of electric typewriters and data-processing equipment in the world.
    </p>
    <ul>
        <li>In 1939, he received an honorary degree in Doctor of Commercial Science from Oglethorpe University. </li>
        <li>In 1940s, Watson was on the national executive board of the Boy Scouts of America. </l>
        <li>Watson served as a trustee of Columbia University from June 6, 1933, until his death. </li>
        <li>He was posthumously inducted into the Junior Achievement U.S. Business Hall of Fame in 1990.</li>
    </ul>

    <p><strong>IBM Growth Over Years: </strong></p>

    <table>
        <tr>
            <th>Year </th>
            <th>No. of Employees </th>
            <th>Gross Income (In m$) </th>
        </tr>
        <tr>
            <td>1925</td>
```

```
            <td>3698</td>
            <td>13</td>
        </tr>
        <tr>
            <td>1930</td>
            <td>6346</td>
            <td>19 </td>
        </tr>
        <tr>
            <td>1935</td>
            <td>8651</td>
            <td>21</td>
        </tr>

    </table>

</body>
</html>
```

Go to the **File** menu and click on **Save** to save your code.

The resulting table looks like this.

IBM Growth Over Years:

Year	No. of Employees	Gross Income (In m$)
1925	3698	13
1930	6346	19
1935	8651	21

Add Links to other pages

Web pages connect to other web pages and files using hyperlinks.

A hyperlink is created using the anchor tag `<a>`.

Once you click on the link the 'href' attribute tells the browser to which web page you should be taken to.

Let's create a link to the official web page of IBM from the current page.

Within the main paragraph there is a reference to **IBM**, where we'll add the link.

Find the word IBM in the paragraph and replace it with the code below.

```
 <a href="https://www.ibm.com">IBM </a>
```

Here is the complete html code of the web page.

```
<!DOCTYPE html>
<html>
<head>
    <title>Thomas J. Watson Sr -  Fan Page</title>
</head>
<body>
    <h1>Thomas J. Watson </h1>
    <img src="https://upload.wikimedia.org/wikipedia/commons/7/7e/Thomas_J_Watson_Sr.jpg" width="300" height="300">

    <p>Thomas J. Watson, Sr. is the American industrialist, who built the International Business Machines Corporation (<a href="https://www.ibm.com">IBM</a>)  into the largest manufacturer of electric typewriters and data-processing equipment in the world.
    </p>
    <ul>
        <li>In 1939, he received an honorary degree in Doctor of Commercial Science from Oglethorpe University. </li>
        <li>In 1940s, Watson was on the national executive board of the Boy Scouts of America. </l>
        <li>Watson served as a trustee of Columbia University from June 6, 1933, until his death. </li>
        <li>He was posthumously inducted into the Junior Achievement U.S. Business Hall of Fame in 1990.</li>
    </ul>

    <p><strong>IBM Growth Over Years: </strong></p>

    <table>
        <tr>
            <th>Year </th>
            <th>Employees </th>
            <th>Gross Income (In m$) </th>
        </tr>
        <tr>
            <td>1925</td>
            <td>3698</td>
            <td>13</td>
        </tr>
        <tr>
            <td>1930</td>
            <td>6346</td>
            <td>19 </td>
        </tr>
        <tr>
            <td>1935</td>
            <td>8651</td>
            <td>21</td>
        </tr>

    </table>

</body>
</html>
```
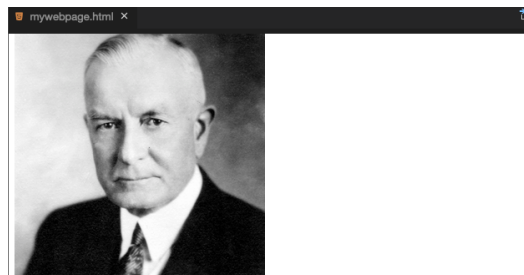
Go to the **File** menu and click on **Save** to save your code.

You should then see the hyperlink like this.

mywebpage.html ×

Thomas J. Watson, Sr. is the American industrialist, who built the International Business
Machines Corporation (IBM) into the largest manufacturer of electric typewriters and data-
processing equipment in the world.

When you click on the hyperlink, your browser will navigate to the IBM website.

You should now see the complete web page using Live server.

Congratulations

Congratulations!!! You have created your first web page.
If you haven't already done so, you should try creating a web page with your details.

Author(s)

Ramesh Sannareddy

Other Contributor(s)

Changelog

Date	Version	Changed by	Change Description
2020-08-13	1.0	Ramesh Sannareddy	Initial version created

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