

QUESTION 1

[20 Marks]

Using only HTML (i.e. no CSS at all), create an HTML file that produces the page shown in Figure 1. Detailed specifications and the assessment are given in Table 1.

A

What is AJAX

Introduction and How does it Work?

B

INTRODUCTION TO AJAX

What Is AJAX?

Ajax stands for **A**synchronous **J**avaScript and **X**ML. It describes a set of development techniques used for building websites and web applications.

AJAX's core function is to update web content asynchronously (the "A" of AJAX), meaning a user's web browser doesn't need to reload an entire web page when only a small portion of content on the page needs to change.

With Ajax, web applications can **send and retrieve data** from a server asynchronously without interfering with the display and behavior of the existing page.

C

How Does It Work?

```
graph LR; subgraph Browser1 [Browser]; B1[An event occurs...  
• Create an XMLHttpRequest object  
• Send XMLHttpRequest]; end; subgraph Internet1 [Internet]; I1[ ]; end; subgraph Server [Server]; S[• Process HTTPRequest  
• Create a response and send data back to the browser]; end; subgraph Browser2 [Browser]; B2[• Process the returned data using JavaScript  
• Update page content]; end; subgraph Internet2 [Internet]; I2[ ]; end; Browser1 --> Internet1; Internet1 --> Server; Server --> Internet2; Internet2 --> Browser2;
```

Click on the image to learn more about AJAX.

D

The above figure shows **how AJAX works**. The steps involve:

1. Browser sends an XMLHttpRequest
2. At server side:
 - i. Server processes the HTTPRequest
 - ii. Server sends responses back to the browser
3. Browser receives the responses and updates the page

Figure 1: Expected output when the page is opened in a browser

Table 1: Specifications for the page and the assesement.

No.	Item	Specification	Assesement
1.	(A) The image	Insert the proper images header at the top of your page.	2 marks
		Add extra blank line between image header and parapraps on your page.	2 marks
2.	Title Texts such as “INTRODUCTION TO AJAX”, “What is AJAX?”, etc.	Use proper headings for all the title texts.	3 marks
3.	(B) Paragraphs	There are three paragraphs in this section.	5 marks
		Use proper html element for emphasize the main point text in the paragraphs.	
4.	(C) The image	In this paragraph, it is a clickable image. When it is clicked on, the browser will go to this URL: https://www.w3resource.com/ajax/introduction.php Use proper html element to display text “ Click on the image to learn more about AJAX. ”	3 marks
5.	(D) The list items	In this paragraph, there are a main list and sub-list. Use numbering styles as shown in the figure.	5 marks

Notes:

- Expected output is also given in the file **result/q1.pdf**.
- To “copy-and-paste” the content, use the file **result/q1.pdf** or **text/q1.txt**.
- The images for **A, B** is provided in the folder img, **ajax.jpg** and **work.jpg**