**Learning Objectives**

* To learn about Web;
* To learn about web page;
* To learn about website.

**Learning Contents**

**What is a Web?**

* We have known that computers are interconnected with each other on the Internet and computers communicate with different languages (protocols) to exchange documents, emails and messages.
* HTTP is a kind of network protocol, which is used to share a web page between computers just like the web page you are reading now.
* Web is a part of the Internet. Web pages are shared on the Web. If you start with http:// or https:// when inputting a URL in your browser, you are informing the browser that you are browsing the Web.

**What is a web page?**

* Web page is a document compiled in HTML. A web page can be shared on the Internet.
* You may open a web page with a browser.
* You can browse web pages in the following ways:
  + Input a website in the address bar of the browser, e.g. [http://baidu.com](http://baidu.com/);
  + Click on a link, e.g. [the link](https://school.thoughtworks.cn/learn/program-center/student/index.html) [http://baidu.com](http://baidu.com/).
* It will be very troublesome if we need to visit all web pages through URLs as we have to remember all URLs. Web originated from HTML documents which are interlinked. By jumping to different documents within a document, it is more convenient for users to browse web pages.

**What is a website?**

* Website is a collection of all web pages in the same domain, e.g.:
  + Web → https://
    - Website → baidu.com
      * Web page → /index.html
      * Web page → /about.html
      * Web page → /setting.html
* Open [http://baidu.com](http://baidu.com/) in your browser.
  + When you input <http://baidu.com/index.html> in the address bar of your browser, it means you desire to get contents on the web page of index.html from the Internet. In this case, your browser is a client and you need to get the document index.html from Baidu server. The whole process goes as below roughly:

| **Client: Your browser** | **Hi, Baidu server, please return web page of index.html to me.** |
| --- | --- |
| Server: Baidu server | OK. Let me check whether I have this web page … |
| Client: Your browser | OK. I will wait for your reply… |
| Server: Baidu server | Oh, I found it. I will send index.html to you right now. |
| Client: Your browser | OK. I have received it. |

* + Then your browser will display contents of index.html.
  + This document is not stored in your computer. You just browse the web page temporarily. If you visit <http://baidu.com/about.html> back again later, your browser will request about.html document from Baidu server as per the above process. A new request ensures that the browser always displays the most recent data returned from the server.

**Recommended Resources**

* WWW (<https://en.wikipedia.org/wiki/World_Wide_Web>)
* web (<https://baike.baidu.com/item/Web/150564>)