

# Lab4

**Deadline: 2015-04-04 23:59:59**

*The solution (just for your reference) will be uploaded to **/LAB/lab4\_sol** after deadline. And I have uploaded some ebooks to **/Materials** for your further study.*

**Any questions contact me at [11302010035@fudan.edu.cn](mailto:11302010035@fudan.edu.cn)**

Before this lab, I strongly recommend you to use Chrome or Firefox to develop and test. IE (especially IE9-) and other browsers such as 360, Sougou, etc. are the worst choices.

This lab is about CSS layout, mainly involves box model, position and float. Before you start, the following articles may be quite helpful to you:

[Learn CSS Layout](#)

[MDN Position](#)

## Part A

In this part, you will learn how to use Chrome Developer Tools (we take it as an example; surely you can use Firebug instead). Of course you can skip this part if you are quite familiar with it.

You can get the tutorials at <https://developer.chrome.com/devtools> . However, because of the GFW as everyone knows, it's more convenient to get the Chinese version at <https://github.com/CN-Chrome-DevTools/CN-Chrome-DevTools> .

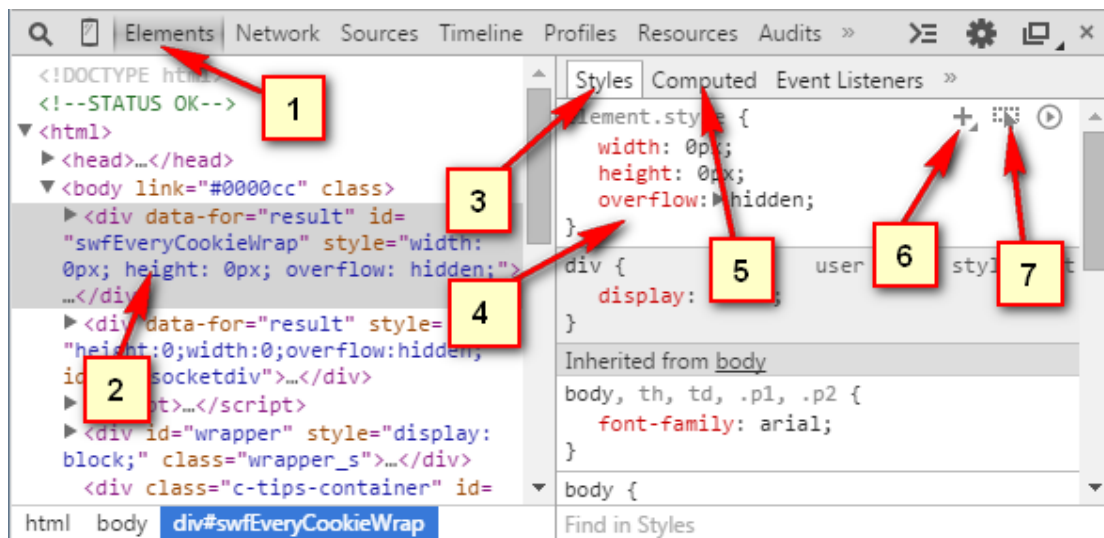
Since it will need much time to read all the tutorials, I recommend you to read it carefully after class, and now let me show you the basic usage about how to inspect DOM and modify style.

In the Elements panel, you can inspect DOMs at the left side and modify styles at the right side. You may find the key points in the snapshot below:

1. The Elements panel
2. You can inspect DOM elements here, and you can do more things by right

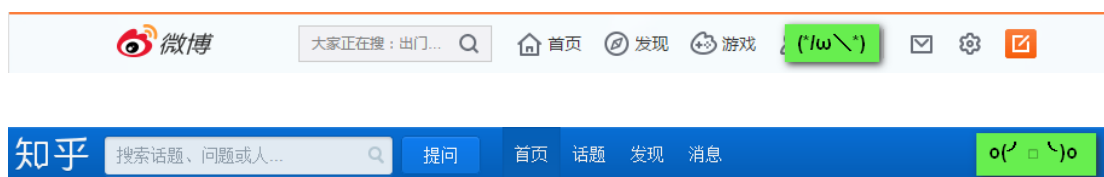
clicking.

3. You can view and modify styles here.
4. You can just click here to add a new style or modify already existing styles.
5. You can see the computed styles, i.e. the styles that browser use to render the DOM elements.
6. Add a new style rule.
7. Toggle element state.



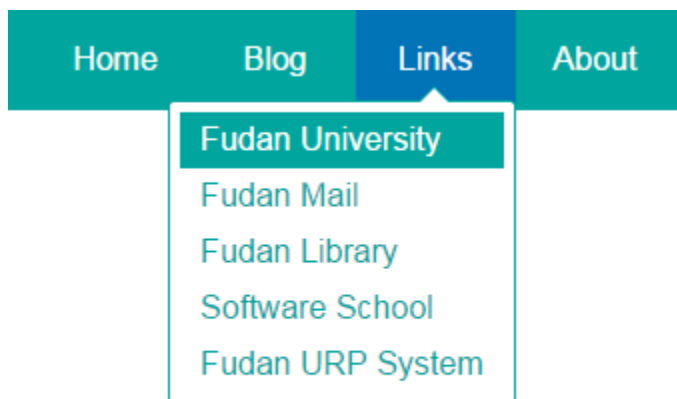
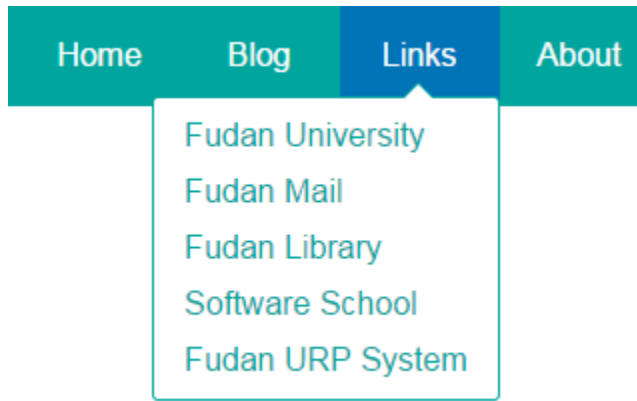
## Part B

This part you need to implement a navigation. Many websites have navigations, for example, weibo, zhihu, etc.



And what I want you to implement looks like below:

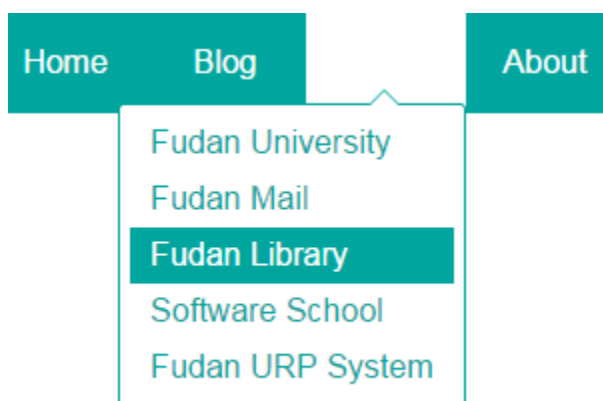




And here are the requirements:

1. **The navigation bar will never scroll down**, i.e. it will at the top of the page permanently.
2. I have already defined the DOM structure and class names in index.html, and basic style rules in style.css. **You must not modify index.html and you can only change contents in style.css.**
3. The navigation (**div.nav**) is **50px** height, background color is **#00a59d**. **div.nav-inner** is **960px** width and **50px** height, and it will at the center of **div.nav**.
4. The logo (13ss) is at the **left most** of div.nav-inner, its color is **#efefef** and hover-color is **#fff**. The menubar (**ul.menubar**) is at the **right most** of div.nav-inner.
5. Each menu (**li.menu**) is **80px** width and **50px** height, color is **#fff** and hover-background is **#0074b7**, and text-align is **center**.

6. When the menu link is hovered, the submenus (ul.submenubar) will show. Its border is 1px solid #00a59d, and border radius is 3px.
7. Each submenu (**.submenubar > li**) has font color #00a59d, when hovered, its background color will be #00a59d and font color will be #fff.
8. The submenubar (.submenubar) has a **little triangle** at the top of it, and please note that even the triangle has a **border**. The triangle will **at the top of submenubar** and **points to the horizontal center** of link menu.
9. As for the little triangle, I want you to implement it with **pseudo elements (::before and ::after)**. And you can take [this](#) as a reference.



## Part C

This part mainly teaches you how to **clearfix**. Until now you have learned what is float and how to use it. However, using float may cause something weird, for example, if all children of a DOM node are floating, then height of this node may be 0px, so you may need **clearfix hack** to solve this problem.

There are several methods to solve this problem, you can take [this](#) as a reference. And Google (NOT Baidu) is a good teacher.

**Compress *index.html* and *style.css* to *133020100XX\_name.zip* and upload it to FTP server before deadline.**