REACT.js Prototyping Exercise

Please create HTML codes compatible with Internet Explorer (from version 9 to latest version), Firefox, and Chrome.

You need to use REACT.js to complete the following tasks. If you are unsure about the question, feel free to make all the necessary UI behavior assumptions and state them in a separate document.
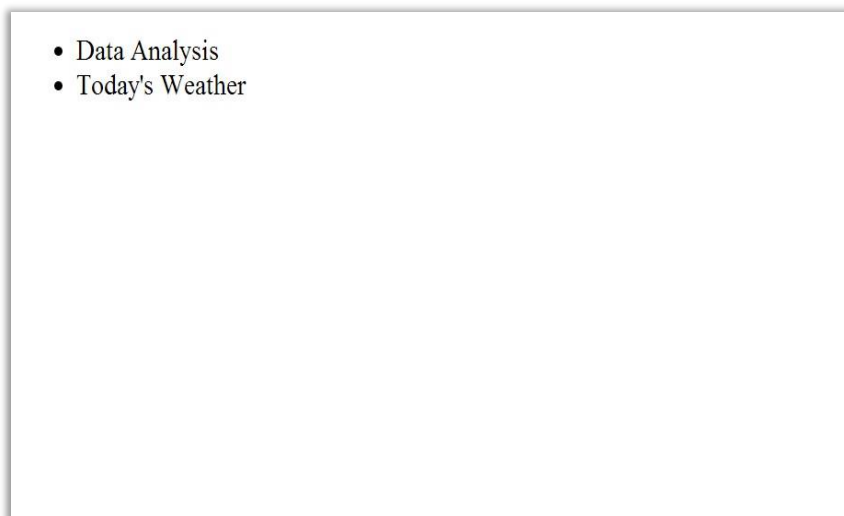
Your deliverables are:
- HTML pages containing the answers to the questions
- Any additional files (images, JavaScript, CSS) that accompany the HTML files - (optional) a separate MS Word or txt file containing your assumptions

Your answer will be evaluated based on:
- Feature completeness
- Code readability (naming convention, comments, etc)
- Web Standards compliance
- Code reusability and extendibility
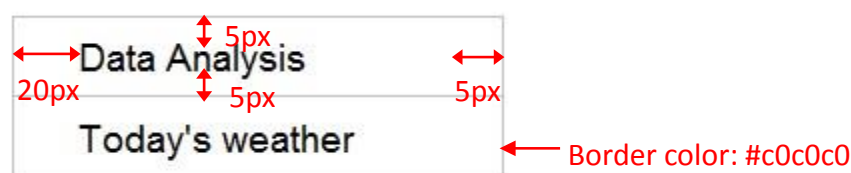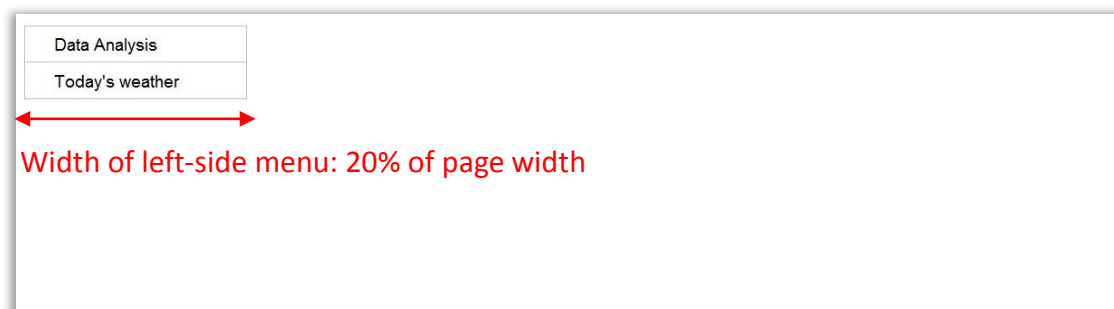- Compatible with different display resolution of clients

Task 1.

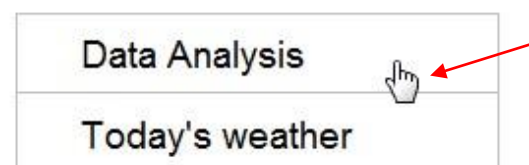There is a home page as the following picture:

- Data Analysis
- Today's Weather

(File location: *index.html*)

Please change the style of the left-side menu based on the following specification:

Data Analysis
Today's weather

Width of left-side menu: 20% of page width

Data Analysis
5px
20px   5px   5px
Today's weather
Border color: #c0c0c0

Font size: 12px; Font family: Arial

When the cursor hovers menu items, change the cursor to the following style:

Data Analysis
Today's weather

When user clicks a menu item, highlight the selected item to the following style:

Data Analysis
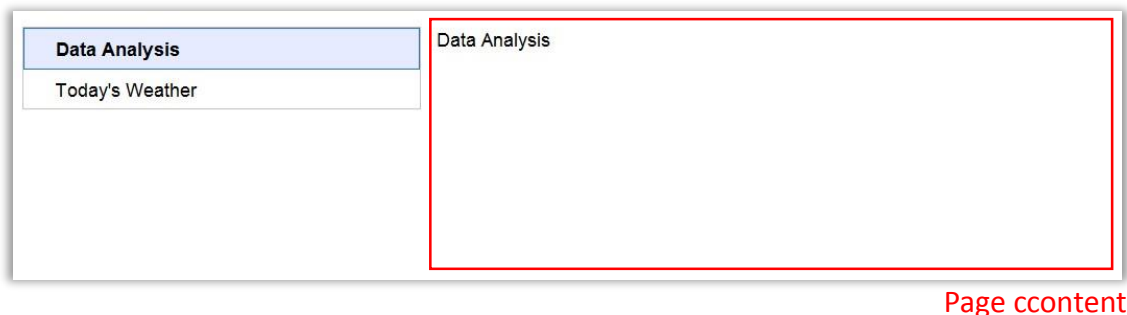Border color: #2a9fcd
Today's Weather
Background color: #E7EBFF

Font style: bold

Task2.

When user selects a menu item, dynamically load corresponded page and resources files to home page.

Ex: When user clicks the link "Data Analysis", show as the following picture:
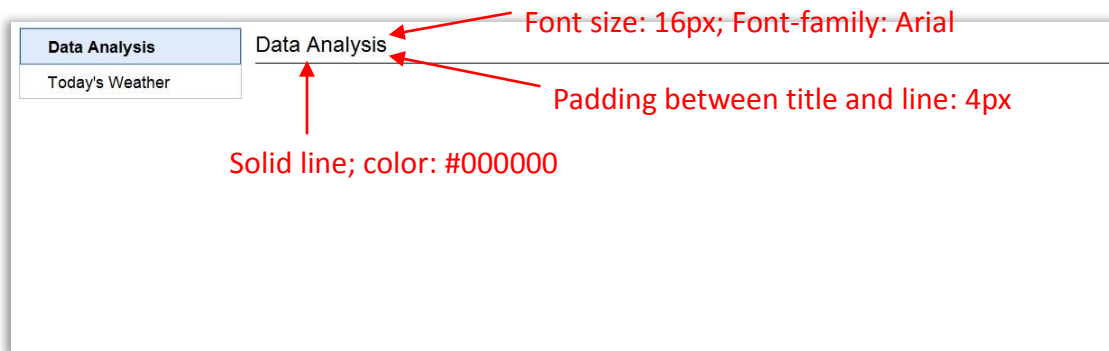

Page ccontent

If user select the other menu item, switch the content to corresponded page.

Please refer the following information to implement:

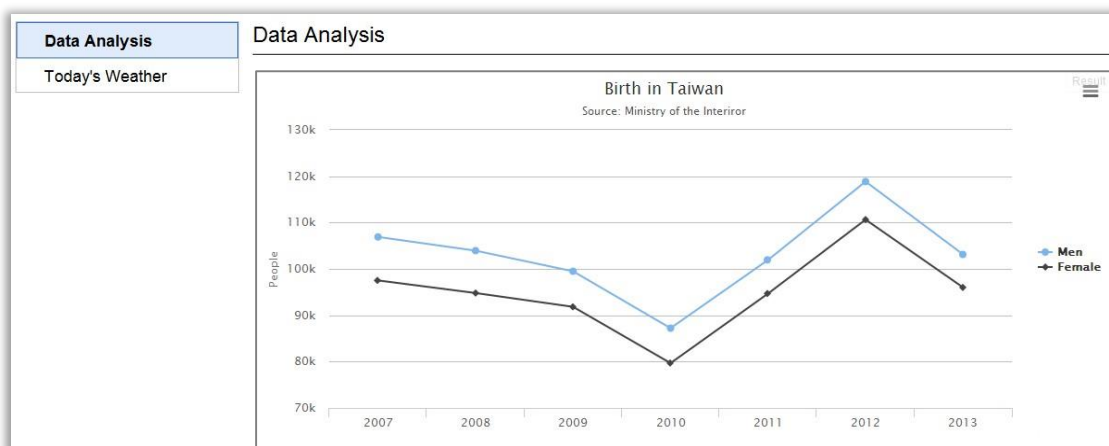| Menu item	Page and resource files
Data Analysis	template\dataAnalysis.html
	css\dataAnalysisStyle.css
	js\dataAnalysisController.js
Today's Weather	template\todayWeather.html
	css\todayWeatherStyle.css
	js\todayWeatherController.js

Task3.

Please refer to the following information to implement page "Data Analysis".

Show a line chart under page title based on the following data:

Year	Birth in Taiwan	
	Men	Female
2007	106,898	97,516
2008	103,937	94,796
2009	99,492	91,818
2010	87,213	79,673
2011	101,943	94,684
2012	118,848	110,633
2013	103,120	95,993

You can use any 3-party libraries to complete the task. Ex:

Task4.

Please refer to the following mockup to implement page "Today's Weather".

You can set appropriate styles on your own when implementation.

Requirements:

1. User can input city and country name to get weather information and display them on UI.
   Please use AJAX to get weather information from *OpenWeatherMap.
2. Display information at least based on mock up UI.

*You can use API from OpenWeatherMap to get weather data by city and country name.
You can sign up free account to retrieve API key for OpenWeatherMap API from
https://openweathermap.org/price
Ex: Request URL:
http://api.openweathermap.org/data/2.5/weather?q=Taipei,TW&units=metric&appid={YOUR_API_KEY}

Response (JSON):
{"coord":{"lon":121.53,"lat":25.05},"sys":{"message":0.0199,"country":"TW","sunrise": 1398719962,"sunset":1398766982},"weather":[{"id":803,"main":"Clouds","description": "overcast clouds","icon":"04d"}],"base":"cmc stations","main":{"temp":23.07,"pressure":1013,"humidity":60,"temp_min":23,"temp_max":30},"wind":{"speed":6.2,"deg":80,"var_beg":50,"var_end":110},"clouds":{"all":75}," dt":1398754800,"id":1668341,"name":"Taipei","cod":200}

(You can refer http://openweathermap.org/current to get more detailed information)

3.   Use CSS sprite to show current weather on UI. (Sprite's file location: *img\icons.png*)   · If weather description contains string "cloud", show the following picture:

· If weather description contains string "rain", show the following picture:

· If weather description contains string "clear", show the following picture:

· If weather description is not in above conditions, show the following picture:

4.   During weather query, an AJAX loading image is required. Ex:

5.   If user inputs invalid city or country name, show appropriate message on UI.
Ex: Request URL:

http://api.openweathermap.org/data/2.5/weather?q=notexist&appid={Y
OUR_API_KEY}

Response (JSON):

{"cod":"502","message":"Error: Not found city"}