**Day-1**

**Task-1**

* *Some titles are truncated in list view*
* *Some have no rating*
* *Some books has link to author and some don’t (i.e. Some are in ‘a’ tag and some are in ‘span’ tag)*
* ***Description of book*** *is under div ‘iframeContent’ for all detail view of book but different tags(<p>,<b>,<i>) are used to describe the book.*
* ***Ace Data Science Interview Questions(https://www.amazon.com/Ace-Data-Science-Interview-Questions/dp/0578973839)*** *is taken in case of product URL, reviews, description*

| *https://www.amazon.com/gp/new-releases/books/5/* | **Position** | **Title** | **Author** | **Price** | **Rating** | **Product Url** | **Reviews**  *(https://www.amazon.com/Ace-Data-Science-Interview-Questions/dp/0578973839#customerReviews)* | **Description**  *(https://www.amazon.com/Ace-Data-Science-Interview-Questions/dp/0578973839)* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parent element | span class="**a-list-item**" | span class="**a-list-item**" | span class="**a-list-item**" | span class="**a-list-item**" | span class="**a-list-item**" | span class="**a-list-item"** | div id="**cm-cr-dp-review-list**" | div id="**bookDescription\_feature\_div**" |
|  | span class="**zg-badge-text**" | div class="**p13n-sc-truncated**" | a class="a-size-small a-link-child" | span class='**p13n-sc-price**' | span class="**a-icon-alt**" | a class="a-link-normal" href="**/Ace-Data-Science-Interview-Questions/dp/0578973839/**” | | div data-hook="**review-collapsed**" | | --- | | **span** | | div id="**iframeContent**" |

**Task 2: List of sitemap URLs**

1. <https://salve.edu/sitemap.xml>
2. <https://www.ny.gov/sitemap.xml>
3. <https://www.onlinekhabar.com/wp-sitemap.xml>
4. <https://www.bbc.com/sitemap.xml>
5. <https://www.jumbo.ae/sitemap.xml>

**Task 3: List of robots.txt URLs**

1. <https://twitter.com/robots.txt>
2. <https://www.reddit.com/robots.txt>
3. <https://www.bbc.com/robots.txt>
4. <https://www.ebay.com/robots.txt>
5. <https://www.jumbo.ae/robots.txt>

**Day -2**

***Task 1***

***List CSS Selectors and Xpath for ‘Position, Title, Author, Price, Review, Rating, Description, Product Url’ in https://www.amazon.com/gp/new-releases/books/5/***

* *Some titles are truncated in list view*
* *Some have no rating*
* *Some books has link to author some don’t (i.e. Some are in ‘a’ tag and some are in ‘span’ tag)*
* ***Description of book*** *is under div ‘iframeContent’ for all detail view of book but different tags(<p>,<b>,<i>) are used to describe the book.*
* ***Ace Data Science Interview Questions(https://www.amazon.com/Ace-Data-Science-Interview-Questions/dp/0578973839)*** *is taken in case of product URL, reviews, description , Selector, XPath*

| *https://www.amazon.com/gp/new-releases/books/5/* | **Position** | **Title** | **Author** | **Price** | **Rating** | **Product Url** | **Reviews**  *(https://www.amazon.com/Ace-Data-Science-Interview-Questions/dp/0578973839#customerReviews)* | **Description**  *(https://www.amazon.com/Ace-Data-Science-Interview-Questions/dp/0578973839)* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parent element | span class="a-list-item" | span class="a-list-item" | span class="a-list-item" | span class="a-list-item" | span class="a-list-item" | span class="a-list-item" | div id="cm-cr-dp-review-list" | div id="bookDescription\_feature\_div" |
|  | span class="zg-badge-text" | div class="p13n-sc-truncated" | a class="a-size-small a-link-child" | span class='p13n-sc-price' | span class="a-icon-alt" | a class="a-link-normal" href="/Ace-Data-Science-Interview-Questions/dp/0578973839/” | | div data-hook="review-collapsed" | | --- | | span | | div id="iframeContent" |
| **CSS Selector** | #zg-ordered-list > li:nth-child(4) > span > div > div > span.a-size-small.aok-float-left.zg-badge-body.zg-badge-color > span | #zg-ordered-list > li:nth-child(4) > span > div > span > a > div | #zg-ordered-list > li:nth-child(4) > span > div > span > div:nth-child(2) > a | #zg-ordered-list > li:nth-child(4) > span > div > span > div:nth-child(5) > a > span > span | #zg-ordered-list > li:nth-child(4) > span > div > span > div.a-icon-row.a-spacing-none > a:nth-child(1) > i > span | #zg-ordered-list > li:nth-child(4) > span > div > span > a | #customer\_review-R16REY0CMZOX4Z > div.a-row.a-spacing-small.review-data > span > div > div.a-expander-content.reviewText.review-text-content.a-expander-partial-collapse-content > span | #iframeContent |
| **XPATH** | //\*[@id="zg-ordered-list"]/li[4]/span/div/div/span[1]/span | //\*[@id="zg-ordered-list"]/li[4]/span/div/span/a/div | //\*[@id="zg-ordered-list"]/li[4]/span/div/span/div[1]/a | //\*[@id="zg-ordered-list"]/li[4]/span/div/span/div[4]/a/span/span | //\*[@id="zg-ordered-list"]/li[4]/span/div/span/div[2]/a[1]/i/span | //\*[@id="zg-ordered-list"]/li[4]/span/div/span/a | //\*[@id="customer\_review-R16REY0CMZOX4Z"]/div[4]/span/div/div[1]/span | //\*[@id="iframeContent"] |

**Task 2**

**Explore a few URLs and try to get CSS Selectors for main elements.**

URL: *https://www.airbnb.com/s/Kathmandu/homes?place\_id=ChIJv6p7MIoZ6zkR6rGN8Rt8E7U&refinement\_paths%5B%5D=%2Fhomes&search\_type=section\_navigation*

|  | **Type of Service** | **Service Name** | **Rooms** | **Rating** | **Price** | **Service URL** |
| --- | --- | --- | --- | --- | --- | --- |
| **CSS Selector** | #ExploreLayoutController > div.\_fninp > div:nth-child(1) > div.\_twmmpk > div > div:nth-child(2) > div > div > div:nth-child(3) > div > div > div > div > div:nth-child(1) > div > div > div.\_1e541ba5 > div > div > div > div.\_8s3ctt > div.\_12oal24 > div.\_r6zroz > div > div.\_1tanv1h > div | #title\_15672909 | #ExploreLayoutController > div.\_fninp > div:nth-child(1) > div.\_twmmpk > div > div:nth-child(2) > div > div > div:nth-child(3) > div > div > div > div > div:nth-child(1) > div > div > div.\_1e541ba5 > div > div > div > div.\_8s3ctt > div.\_12oal24 > div:nth-child(3) | #ExploreLayoutController > div.\_fninp > div:nth-child(1) > div.\_twmmpk > div > div:nth-child(2) > div > div > div:nth-child(3) > div > div > div > div > div:nth-child(1) > div > div > div.\_1e541ba5 > div > div > div > div.\_8s3ctt > div.\_12oal24 > div.\_h34mg6 > div.\_1hxyyw3 > span > span.\_10fy1f8 | #ExploreLayoutController > div.\_fninp > div:nth-child(1) > div.\_twmmpk > div > div:nth-child(2) > div > div > div:nth-child(3) > div > div > div > div > div:nth-child(1) > div > div > div.\_1e541ba5 > div > div > div > div.\_8s3ctt > div.\_12oal24 > div.\_h34mg6 > div.\_ls0e43 > div > div > div > span | #ExploreLayoutController > div.\_fninp > div:nth-child(1) > div.\_twmmpk > div > div:nth-child(2) > div > div > div:nth-child(3) > div > div > div > div > div:nth-child(1) > div > div > div.\_1e541ba5 > div > div > div > div.\_8s3ctt > a |

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**Day-3**

**Task 1**

**List difference between common HTTP methods GET and POST.**

|  | **GET** | **POST** |
| --- | --- | --- |
| **What?** | GET is used to request data from a specified resource. | POST is used to send data to a server to create/update a resource. |
| **Data sending mechanism** | The data sent is patched with URL. | The data sent to the server with POST is stored in the request body of the HTTP request |
| **BACK button/Reload** | Harmless: means that the requested item can be easily achieved without any alert on reloading the page. | Data will be re-submitted (the browser should alert the user that the data are about to be re-submitted) |
| **Bookmarked** | Can be bookmarked | Cannot be bookmarked |
| **Cached** | Can be cached | Not cached |
| **Encoding type** | application/x-www-form-urlencoded | application/x-www-form-urlencoded or multipart/form-data. Use multipart encoding for binary data |
| **History** | Parameters remain in browser history | Parameters are not saved in browser history |
| **Restrictions on data length** | Yes, when sending data, the GET method adds the data to the URL; and the length of a URL is limited (maximum URL length is 2048 characters) | No restrictions |
| **Restrictions on data type** | Yes, when sending data, the GET method adds the data to the URL; and the length of a URL is limited (maximum URL length is 2048 characters) | No restrictions |
| **Restrictions on data type** | Only ASCII characters allowed | No restrictions. Binary data is also allowed |
| **Visibility** | Data is visible to everyone in the URL | Data is not displayed in the URL |

**Task 2**

**Explore a few sites and list GET Query and POST data submitted .**

**GET:**

1. [www.google.com](http://www.google.com)
2. **Request URL:** <https://www.google.com/search?q=grepsr&sxsrf=AOaemvJKIkk6XjHm8ug6Na-eEzi23Br7IA%3A1631759362250&source=hp&ei=AqxCYd2PDYahgQah_I3QCQ&iflsig=ALs-wAMAAAAAYUK6EqDZqnuNY6s7J733NkAi59kw206H&oq=grepsr&gs_lcp=Cgdnd3Mtd2l6EAMyBAgjECcyBAgjECcyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEMgUIABCABDIICAAQBxAKEB4yBQgAEIAEMgUIABCABDoHCCMQ6gIQJzoECAAQQzoQCC4QsQMQgwEQxwEQ0QMQQzoKCAAQsQMQgwEQQzoHCAAQsQMQQzoLCAAQgAQQsQMQgwE6BQgAEJECOg0ILhCxAxDHARDRAxBDOggIABCABBCxAzoKCC4QxwEQ0QMQQzoECC4QQzoOCC4QgAQQsQMQxwEQrwE6CwguEIAEEMcBEK8BOgcIABCABBAKOgQIABAKUKAVWL7GAWDXwQJoA3AAeACAAaoBiAHyCZIBAzAuOJgBAKABAqABAbABCg&sclient=gws-wiz&ved=0ahUKEwjdmJOpuYLzAhWGUMAKHSF-A5oQ4dUDCAc&uact=5>
3. **Query string parameters**

q: grepsr

sxsrf: AOaemvJKIkk6XjHm8ug6Na-eEzi23Br7IA:1631759362250

source: hp

ei: AqxCYd2PDYahgQah\_I3QCQ

iflsig: ALs-wAMAAAAAYUK6EqDZqnuNY6s7J733NkAi59kw206H

oq: grepsr

gs\_lcp: Cgdnd3Mtd2l6EAMyBAgjECcyBAgjECcyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEMgUIABCABDIICAAQBxAKEB4yBQgAEIAEMgUIABCABDoHCCMQ6gIQJzoECAAQQzoQCC4QsQMQgwEQxwEQ0QMQQzoKCAAQsQMQgwEQQzoHCAAQsQMQQzoLCAAQgAQQsQMQgwE6BQgAEJECOg0ILhCxAxDHARDRAxBDOggIABCABBCxAzoKCC4QxwEQ0QMQQzoECC4QQzoOCC4QgAQQsQMQxwEQrwE6CwguEIAEEMcBEK8BOgcIABCABBAKOgQIABAKUKAVWL7GAWDXwQJoA3AAeACAAaoBiAHyCZIBAzAuOJgBAKABAqABAbABCg

sclient: gws-wiz

ved: 0ahUKEwjdmJOpuYLzAhWGUMAKHSF-A5oQ4dUDCAc

uact: 5

1. <https://www.imdb.com/search/>
2. **Request URL**: <https://www.imdb.com/find?q=3+idiots&ref_=nv_sr_sm>
3. **Query string parameters:**

q: 3 idiots

ref\_: nv\_sr\_sm

1. <https://www.daraz.com.np/>
2. **Request URL**: <https://www.daraz.com.np/catalog/?q=Laptop&_keyori=ss&from=input&spm=a2a0e.11779170.search.go.35d12d2bohgEgE>
3. **Query string parameters:**

q: Laptop

\_keyori: ss

from: input

spm: a2a0e.11779170.search.go.35d12d2bohgEgE

**POST**

* 1. **Request URL:**  <http://httpbin.org/post>
  2. **Form Data:**

custname: Gaurav Karki

custtel: 9843579448

custemail: gauravkarki78@gmail.com

size: small

topping: bacon

topping: cheese

delivery: 12:00

comments: Make it fresh.

* 1. **Request URL:** <https://quotes.toscrape.com/login>
  2. Form Data:

csrf\_token: FLtcjWKYvUqCgIrpsOhHQJBZfbVwuADGoleMmXEazPRyTnkNxiSd

username: abc

password: def12

**Task 3:**

**Explore a few sites and list common HTTP Headers found there.**

1. [**https://www.whitehatsec.com/blog/list-of-http-response-headers/**](https://www.whitehatsec.com/blog/list-of-http-response-headers/)
2. **Response Headers:**

cache-control: no-cache, no-store, max-age=0, must-revalidate

content-encoding: br

content-type: text/html; charset=utf-8

x-frame-options: SAMEORIGIN

1. **Request headers:**

:authority: www.whitehatsec.com

:method: GET

:path: /blog/list-of-http-response-headers/

:scheme: https

accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,\*/\*;q=0.8,application/signed-exchange;v=b3;q=0.9

accept-encoding: gzip, deflate, br

accept-language: en-US,en;q=0.9,ne-NP;q=0.8,ne;q=0.7,fr-FR;q=0.6,fr;q=0.5

upgrade-insecure-requests: 1

user-agent: Mozilla/5.0 (X11; Linux x86\_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/93.0.4577.63 Safari/537.36

1. [**https://www.google.com/**](https://www.google.com/)
2. **Response Headers:**

cache-control: max-age=600, must-revalidate

content-encoding: br

content-type: text/html; charset=UTF-8

x-frame-options: SAMEORIGIN

1. **Request headers:**

:authority: www.google.com

:method: GET

:path: /

:scheme: https

accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,\*/\*;q=0.8,application/signed-exchange;v=b3;q=0.9

accept-encoding: gzip, deflate, br

accept-language: en-US,en;q=0.9,ne-NP;q=0.8,ne;q=0.7,fr-FR;q=0.6,fr;q=0.5

1. **www.youtube.com**
2. **Response Headers:**

cache-control: private, max-age=0

content-encoding: br

content-type: text/html; charset=UTF-8

x-frame-options: SAMEORIGIN

1. **Request headers:**

:authority: www.youtube.com

:method: GET

:path: /

:scheme: https

accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,\*/\*;q=0.8,application/signed-exchange;v=b3;q=0.9

accept-encoding: gzip, deflate, br

accept-language: en-US,en;q=0.9,ne-NP;q=0.8,ne;q=0.7,fr-FR;q=0.6,fr;q=0.5

upgrade-insecure-requests: 1

user-agent: Mozilla/5.0 (X11; Linux x86\_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/93.0.4577.63 Safari/537.36

**Task 4**

**Explore a few sites, try false URL (altering) and list a few HTTP Code received.**

| Site | False URL | HTTP Response |
| --- | --- | --- |
| google.com | google.com/user | 404 Page not found |
| yahoo.com | yaho.com | 301 Moved Permanently |
|  |  |  |
|  |  |  |

**Task 5**

**List similarity or difference between HTTP, REST, SOAP and FTP.**

**Similarities between FTP and HTTP**

1. Both FTP and HTTP rely on TCP/IP for data communication.
2. Both FTP and HTTP are designed to create data connections between a client and a server for the transmission of information across IP networks.

**Differences between FTP and HTTP**

| **FTP** | **HTTP** |
| --- | --- |
| Needs two TCP connections (control connection at port 21 and Data connection at port 20) | Needs only one TCP connection (port 80 or 443) |
| Mainly used to transfer files. | Mainly used to access websites on the Internet (or any other network) |
| Requires authentication (username/password) | No authentication required |
| Data transferred (files) are stored on both ends of the connection (client and server). | No data storage takes place (e.g browser just retrieves and displays data). |
| Problems with Firewalls because of the double-connection needed (although modern firewalls take care of it). | No problems to pass through firewalls. |
| A new connection must be established for each data transfer. | Persistent Connections. A client maintains a single connection to the server and uses that for all data transfer. |
| Not much compression of data. | Better compression in data transfer (e.g using GZIP) |
| FTP can do other operations on remote server such as listing the directory files, creating folders etc. | HTTP can’t do directory listing. |
| No native proxy support. | Supports HTTP Proxy natively. |
| Stateful | Stateless |

**REST :** Representational state transfer

**SOAP :** Simple Object Access Protocol

**Similarities Between SOAP and REST**

1. Both SOAP and REST connect to two applications via server-side data that is machine and human-readable.
2. Both typically utilize HTTP protocols and methods (i.e. GET, POST, DELETE), but can also use other protocols, such as STMP.
3. Both can understand XML web documentation and can use XML in requests and responses.

**Differences Between SOAP and REST**

1. REST can use XML, but is equally at home with JSON, HTML, and even plain text. By contrast, SOAP APIs require XML, as the standard is built upon the format.
2. SOAP is a standard protocol with strict rules - maintained and fully backed by the W3C consortium, while REST is a set of best practices that can be more fluid.
3. SOAP is built around remote procedure calls and REST is resource-based (i.e… getUser(23) vs /user/23).

**Task 6**

**List and describe various types of Cookies.**

Cookies are small text files placed on a user’s computer (or smartphone), which are commonly used to collect personal data. Most website operators place cookies on the browser or hard drive of their user's computer. Cookies can gather information about the use of a website or enable the website to recognise the user as an existing customer when they return to the website at a later date.

**Types of cookies**

1. Session cookies

Session cookies, also known as 'temporary cookies', help websites recognise users and the information provided when they navigate through a website. Session cookies only retain information about a user's activities for as long as they are on the website. Once the web browser is closed, the cookies are deleted. These are commonly used on shopping websites or e-commerce websites.

1. Permanent cookies

Permanent cookies, also known as 'persistent cookies', remain in operation even after the web browser has closed. For example they can remember login details and passwords so web users don't need to re-enter them every time they use a site. The law states that permanent cookies must be deleted after 12 months.

1. Third-party cookies

Third-party cookies are installed by third-parties with the aim of collecting certain information from web users to carry out research into, for example, behaviour, demographics or spending habits. They are commonly used by advertisers who want to ensure that products and services are marketed towards the right target audience.

1. Flash cookies

Flash cookies, also known as 'super cookies', are independent from the web browser. They are designed to be permanently stored on a user's computer. These types of cookies remain on a user's device even after all cookies have been deleted from their web browser.

1. Zombie cookies

Zombie cookies are a type of flash cookie that are automatically re-created after a user has deleted them. This means they are difficult to detect or manage. They are often used in online games to prevent users from cheating, but have also been used to install malicious software onto a user's device.

**Task- 7**

**List differences between Cookies and Session.**

| **Session** | **Cookies** |
| --- | --- |
| A session stores the variables and their values within a file in a temporary directory on the server. | Cookies are stored on the user's computer as a text file. |
| The session ends when the user logs out from the application or closes his web browser. | Cookies end on the lifetime set by the user. |
| It can store an unlimited amount of data. | It can store only limited data. |
| We can store as much data as we want within a session, but there is a maximum memory limit, which a script can use at one time, and it is 128 MB. | The maximum size of the browser's cookies is 4 KB. |
| We need to call the session\_start() function to start the session. | We don't need to call a function to start a cookie as it is stored within the local computer. |
| In PHP, to set a session data, the $\_SESSION global variable is used. | In PHP, to get the data from cookies, the $\_COOKIE global variable is used. |
| In PHP, to destroy or remove the data stored within a session, we can use the session\_destroy() function, and to unset a specific variable, we can use the unset() function. | We can set an expiration date to delete the cookie's data. It will automatically delete the data at that specific time. There is no particular function to remove the data. |
| Sessions are more secured compared to cookies, as they save data in encrypted form. | Cookies are not secure, as data is stored in a text file, and if any unauthorized user gets access to our system, he can temper the data. |

**Task - 8**

**Headless Chrome?**

Headless mode is a functionality that allows the execution of a full version of the latest Chrome browser while controlling it programmatically. It can be used on servers without dedicated graphics or display, meaning that it runs without its “head”, the Graphical User Interface (GUI).

Headless chrome is a way to run the Chrome browser in a headless environment.

**Day - 5**

**Task - 1**

**What are advantages and disadvantages of using Proxy?**

Proxy server is the server (the computer system or the application) that acts as the intermediary for the clients requests that seek resources from other servers.

**Proxy Server advantages:**

1. Proxy servers offer faster access to the requested resources and reduce the bandwidth required for internet access because they can cache the servers’ contents.
2. They enable content filtering. The undesired sites are blocked, the contents are scanned for the spyware or the malware before receiving and the outbound content is also scanned.
3. The proxy servers are used to overcome region-specific content restrictions. Internet users in China often utilize the proxy servers to access websites such as Facebook and Google Docs as these sites are blocked by the government.
4. The proxy servers can prevent the attackers. It is easier to identify the methods of an attack, they will detect the threats and they do not allow them to reach your system.
5. The proxy services do not allow direct communications between the external servers and the internal computers, so Internal IP addresses are shielded from the external world.

**Proxy Server Disadvantages**

1. If the proxy is located at ISP (Internet Service Provider), there’s a chance of data theft and internet monitoring.
2. There is some coding that needs to be done to make the proxy server suits one’s requirements, even if the single port is left open, it will give the hackers a big window to snoop onto your precious data.
3. The configuration of the proxy firewalls can be more difficult than the other firewall technologies.
4. The proxy firewalls have additional Investment, while the large companies can afford to buy and use the proxy servers, for the smaller firms, it can be hard to do so. Apart from the installation, the additional funds are required for the maintenance and monitoring of the network.

**Task - 2**

**List differences between Proxy and VPN.**

1. VPNs encrypt your traffic while proxy servers don’t. A VPN service protects you from ISP tracking, government surveillance, and hackers. Proxies don’t, so they should never be used to handle sensitive information;
2. VPNs work on the operating system level and reroute all your traffic while proxies work on the application level and only reroute the traffic of a specific app or browser;
3. VPNs can be slower than proxies as they need to encrypt your data; however, there are ways you can improve your connection and browsing speeds;
4. VPNs are usually paid while many proxy servers are free;
5. A VPN connection is more reliable while proxy server connections drop more frequently.

**Task - 3**

**List some third-parties dealing with Captcha solving.**

Completely Automated Public Turing test to tell Computers and Humans Apart(CAPTCHA) is a security feature that prevents a robot from manipulating services provided by the websites.

**Third-parties dealing with Captcha solving:**

1. Anti-Captcha - <https://anti-captcha.com/>
2. 2Captcha - <https://2captcha.com/>
3. Death By Captcha - <http://www.deathbycaptcha.com/>
4. Captchatronix - <http://www.captchatronix.com/>
5. Captchacoder - <https://captchacoder.com/>
6. De-Captcher - <https://de-captcher.com/>
7. Expert Decoders <https://de-captcher.com/>
8. Imagetyperz - <http://www.imagetyperz.com/>
9. Cheap Captcha - <http://cheapcaptcha.com/>
10. Bypass Captcha <http://bypasscaptcha.com/>

**Task - 4**

**Identify form elements for various sites with forms.**

1. <https://www.grepsr.com/contact-us>
   1. input (type = text , email)
   2. label
   3. textarea (refer ”How can we help you?”)
   4. option (refer “What is your current method of data extraction?”)
   5. select (refer “This is our first data extraction project. We have an in-house team. etc.” )
   6. button (refer “Submit”)
2. <https://httpbin.org/forms/post>
   1. input (type = text, email, time, checkbox, radio, tel)
   2. fieldset
   3. button
   4. label
   5. textarea