**Task 1**

**Requirements:**

Please implement a function that can retry another function for given times:

1. Arguments:
   1. 1st argument: A number that specifies maximum times to retry.
   2. 2nd argument: A function that returns true or false. Retry if the function returns false.
   3. 3rd argument: Optional, the time interval (in milliseconds) between 2 retries.
2. Return value: A Promise that:
   1. Resolves if succeeded within given mamximum retries
   2. Rejects if failed after given maximum retries.

**Acceptance Criteria:**

* All functional requirements above are covered.
* Unit Test (Including both happy paths and edge cases).

**Task 2**

**Requirements:**

Please build a HTML login form that:

1. Has elements:
   1. Username, Password input fields
   2. Cancel and Login button
2. Has basic validation:
   1. Username must be at least n charecters long
   2. Password must follow some level of complexity
3. Follows good UI/UX practises, for example:
   1. Login button is diabled until validation is accepted;
   2. Proper hints for input and validation errors.

**Acceptance Criteria:**

* All functional requirements above are covered.
* Can be implemented with any frontend framework, preferably React and Vue.js.
* Can be built with yarn/npm, with bundlers like webpack.
* Can work on major desktop and mobile browsers.
* Supports Chinese and English.

**Task 3**

**Requirements:**

Please implement a function that can fetch and return the temperature of one certain county in China. Here are the specific features:

1. The method signature is `getTemperature(province, city, county)`
2. If the location is invalid, return reasonable value.
3. Add reasonable error handling mechanism, because there might be connection exception when calling the weather API.
4. Add throttling if the TPS(transactions per second) is more than 100.

Here is the APIs flow that shows how to get the temperature of 苏州­­(The following APIs can be checked with Postman):

* Get the province code of China:

http://www.weather.com.cn/data/city3jdata/china.html

* Get the city code of one certain province

http://www.weather.com.cn/data/city3jdata/provshi/10119.html

'10119' is 'province code'

* Get the county code of one certain city:

http://www.weather.com.cn/data/city3jdata/station/1011904.html

'1011904' is 'province code + city code'

* Get the weather of one certain county: http://www.weather.com.cn/data/sk/101190401.html

'101190401' is 'province code + city code + county code.'

**Acceptance Criteria:**

* All functional requirements above are covered.
* Unit Test (Including both Boundary tests and Exception tests.)