Internet Programming

(Pagination, Local data sync)

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Link: https://github.com/chhordaphea-27/I4-TP_Internet_Programming/tree/TP6

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Exercise 1: Pagination (infinite scroll)

1. Source Code

1.1. Index.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Pagination</title>
    <link rel="stylesheet" href="styles.css">
    <script src="script.js"></script>
    <link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link
href="https://fonts.googleapis.com/css2?family=Roboto:ital,wght@0,100;0,300;0,400;0,500;0,700;0,900;1,100;1,
300;1,400;1,500;1,700;1,900&display=swap" rel="stylesheet">
</head>
<body onload="fetchData()">


    <p id="pageNumber">Page: 1</p>
    <div id="scoller-wrapper" onscroll="containerScroll()">
        <div id="loading" hidden>
            <div class="lds-ring"><div></div><div></div><div></div><div></div></div>
        </div>
    </div>


</body>
</html>
```

1.2. Styles.css

```css
body {
    font-family: 'Roboto', sans-serif;
    font-size: medium;
}


#scoller-wrapper {
    /* display: inline-block; */
```

```css
    width: 90%;

    height: 93vh;

    margin: auto;

    overflow-y: auto;

    background-color: rgb(151, 151, 151);

}


#pageNumber {

    /* display: inline-block; */


}


.data {

    width: 90%;

    height: 100px;

    background-color: white;

    padding: 21px;


    margin: auto;

    margin-top: 10px;


    border-radius: 7px;

}


.data h6 {

    display: inline;

    font-size: x-large;

}


.data p {

    display: inline;

    font-size: x-large;


}




#loading {

  text-align: center;

}
```

```css
.lds-ring {
  display: inline-block;
  position: relative;
  width: 80px;
  height: 80px;
}
.lds-ring div {
  box-sizing: border-box;
  display: block;
  position: absolute;
  width: 64px;
  height: 64px;
  margin: 8px;
  border: 8px solid #fff;
  border-radius: 50%;
  animation: lds-ring 1.2s cubic-bezier(0.5, 0, 0.5, 1) infinite;
  border-color: #ffffff transparent transparent transparent;
}
.lds-ring div:nth-child(1) {
  animation-delay: -0.45s;
}
.lds-ring div:nth-child(2) {
  animation-delay: -0.3s;
}
.lds-ring div:nth-child(3) {
  animation-delay: -0.15s;
}
@keyframes lds-ring {
  0% {
    transform: rotate(0deg);
  }
  100% {
    transform: rotate(360deg);
  }
}
```

1.3. Script.js

```javascript
let pageNumber = 1;
```

```javascript
const numberPerPage = 20;

let dataLoading = false;

let currentPage = 1;


let scrollWrapper = null;


let pageHeight = null;



function fetchData() {
    scrollWrapper = document.getElementById("scoller-wrapper");
    const loading = document.getElementById("loading");


    loading.hidden = false;


    fetch(
        `https://api.instantwebtools.net/v1/passenger?page=${pageNumber}&size=${numberPerPage}`
    ).then(async (response) => {
        let datas = await response.json();


        loading.hidden = true;


        datas.data.forEach((element) => {
            scrollWrapper.innerHTML += renderData(element);
        });
        pageNumber++;
        dataLoading = true
    });
}

function renderData(data) {
    let dataCell = `
    <div class="data">
        <h6>🛫: </h6>
        <h6>${data.airline[0].name} - ${data.airline[0].country}</h6>
        <br>
        <p>☺: </p>
        <p>${data.name}</p>
    </div>
    `;
```

```
    return dataCell;

}


function containerScroll() {
    const pageNumberEle = document.getElementById("pageNumber")


    const { scrollTop, clientHeight, scrollHeight } = scrollWrapper;
    if (pageHeight == null) {pageHeight = scrollHeight}


    // console.log(scrollWrapper.scrollTop)


    if (clientHeight + scrollTop >= scrollHeight * 0.95) {
        pageNumber += 1;
        if (dataLoading) {
            fetchData(pageNumber);
            console.log("loading")
        }
        dataLoading = false
    }


    let page = Math.round((scrollTop) / pageHeight) + 1


    pageNumberEle.innerHTML = `Page: ${page}`
    console.log(page)
}
```

2. Result

✈: Eva Air - Taiwan
🙂: John Doe

✈: Eva Air - Taiwan
🙂: John Doe

✈: Eva Air - Taiwan
🙂: John Doe

✈: Eva Air - Taiwan
🙂: John Doe

✈: Eva Air - Taiwan
🙂: John Doe

✈: Eva Air - Taiwan
🙂: John Doe

Exercise 2: Local data syncIndex.html

1. Source Code

1.1. Index.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Local data sync</title>
 <script src="./assets/tailwindcss.js"></script>
```

```html
  <style>
    @import
url('https://fonts.googleapis.com/css2?family=Julee&family=Lato:ital,wght@1,100&family=Oswald:wght@200&fa
mily=Raleway:wght@800&family=Roboto:wght@100&family=Shadows+Into+Light&display=swap');
  </style>


</head>
<body>
  <div class="w-[500px] h-[80vh] p-6 absolute top-[50%] left-[50%] border-2
  translate-x-[-50%] translate-y-[-50%] rounded-lg">
    <div class="h-full rounded-lg overflow-y-scroll" id="scroller">



    </div>
  </div>


  <script src="./assets/app.js"></script>
</body>
</html>
```

1.2. app.js

```javascript
let scrollerEle = document.getElementById("scroller");


let pageNum = 0;
let isDataLoading = false;


var passengers = localStorage.getItem("passengers") != null ? JSON.parse(localStorage.getItem("passengers"))
: [];


// input as array
function displayAPage(dataAPage) {
  dataAPage.forEach(element => {
    scrollerEle.innerHTML += `
      <div class="w-full border-2 rounded-lg px--5 py-2 mb-2 bg-[#F4F4F4]">
        <div class="font-bold">🛩 : ${element.airline[0].name} - ${element.airline[0].country}</div>
        <div>😊 : ${element.name}</div>
      </div>
    `
```

```javascript
  });
}

function fetchDataFromLocal(pageNumber) {
  displayAPage(passengers[pageNumber]);
}

function fetchData(pageNumber) {
  scrollerEle.innerHTML += ` <div class="font-bold text-[1.5rem] px-2">${pageNumber + 1}</div>`;
  pageNum >= passengers.length ? fetchAPI(pageNumber) : fetchDataFromLocal(pageNumber);
  pageNum++;
}

function fetchAPI(pageNumber) {
  isDataLoading = true;
  fetch(`https://api.instantwebtools.net/v1/passenger?page=${pageNumber}&size=15`)
    .then(async (res) => {
      let dataInfors = await res.json();
      passengers.push(dataInfors.data);
      saveToLocalstorage(passengers);
      displayAPage(dataInfors.data);
      isDataLoading = false;
    })
    .catch((err) => {
      alert(err);
    });
}

const saveToLocalstorage = (data) => {
  localStorage.setItem("passengers", JSON.stringify(data));
}



fetchData(pageNum);

scrollerEle.addEventListener("scroll", () => {
  const { scrollTop, clientHeight, scrollHeight } = scrollerEle;
  if ((clientHeight + scrollTop) >= (scrollHeight * 0.95)) {
    if (!isDataLoading) {
      fetchData(pageNum);
```

```
    }
  }
});
```

3

✈ : **Eva Air - Taiwan**
😊 : John Doe

✈ : **Eva Air - Taiwan**
😊 : John Doe

✈ : **Eva Air - Taiwan**
😊 : John Doe

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😊 : John Doe

✈ : **Eva Air - Taiwan**
😊 : John Doe

Exercise 3: List and Viewer

1. Source Code

    1.1. Index.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet" href="./styles.css">
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link
href="https://fonts.googleapis.com/css2?family=Roboto:ital,wght@0,100;0,300;0,400;0,500;0,700;0,900;1,100;1,300;1,400;1,500;1,700;1,900&display=swap" rel="stylesheet">


</head>
<body>
  <h1>Find your favorite 🥂</h1>
  <br>
  <div class="wrapper">
    <div id="dataList">


      <!-- <div id="dataCell" onclick="">
        <img src="http://cleanswifter.com/wp-content/uploads/2016/07/beer.png" alt="" srcset="">
        <div id="info">
          <h2>Arcade Nation</h2>
          <p>The brainchild of our. small batch brewer...</p>
          </div>
      </div> -->



    </div>
    <div class="dataDetail">

      <img src="" alt="" srcset="" id="beerImage">

      <h2 id="selectedName">Arcade Nation</h2>
```

```html
        <p id="date">04/2013</p>
        <p id="detailInfo">Lorem ipsum dolor sit amet, consectetur adipisicing elit. Corrupti natus suscipit sequi
tempora vero incidunt fuga quibusdam repellat cupiditate molestiae!</p>
        <br>
        <p>contributor</p>
        <p><b>(Sam Mason)</b></p>


    </div>
  </div>


    <script src="script.js"></script>
</body>
</html>
```

1.2 Styles.css

```css
body {
    text-align: center;
    font-family: 'Roboto', sans-serif;
    /* width: 50%; */
    margin: auto;
    display: table;
}


h1 {
    margin-bottom: 10px;
}


.wrapper {
    display: grid;
    grid-template-columns: auto auto;
}

/* Left-Side */

#dataList {
    background-color: #cfcfcf;
    overflow-x: auto;

    width: 450px;
    height: 89vh;
```

```css
    padding: 4px;
    padding-top: 2px;


    border-radius: 10px;
    border-color: #CACACA;
    border-style: solid;
}


#dataCell {
    background-color: white;
    border-radius: 10px;


    padding-top: 10px;
    padding-left: 10px;
    padding-right: 10px;


    text-align: left;
    margin-top: 3px;
}


#dataCell :hover {
    cursor: pointer;
}


#dataCell img {
    display: inline-block;
    width: 60px;
    height: 60px;
    margin-bottom: 7px;
}
#dataCell  #info {
    display: inline-block;
    margin-left: 10px;
}


#dataCell  #info p {
    color: #CACACA;
    font-size: small;
```

```css
        overflow: hidden;
        white-space: nowrap;
        text-overflow: ellipsis;
        max-width: 300px;
}

#dataCell h2 {
        margin-top: 0px;
        margin-bottom: -10px;

        font-size: x-large;

        overflow: hidden;
        white-space: nowrap;
        text-overflow: ellipsis;
        max-width: 300px;
}

/* Right-Side */

.dataDetail {
        /* display: inline-block; */
        width: 450px;
        height: 89vh;

        border-radius: 10px;
        border-style: solid;
        border-color: #E6E6E6;

        margin-left: 5px;


}

.dataDetail #date {
        color: #CACACA;
}

.dataDetail #detailInfo {
        margin-left: 80px;
        margin-right: 80px;
```

```css
}

#beerImage {
    height: 300px;
    background-repeat: no-repeat;
    background-size: contain;


}
```

1.3 Script.js

```javascript
//MARK: Element
// Left-side
const dataListEle = document.getElementById("dataList")
// Right-side
const nameDetailProduct = document.getElementById("selectedName")
const dateDetailProduct = document.getElementById("date")
const descriptionDetailProduct = document.getElementById("detailInfo")
const beerImageProdect = document.getElementById("beerImage")

let allPage = 1;
const pageSize = 20;

let dataLoading = false;

const localDataArray = [];

function init() {

    if (isHaveLocalData()) {
        readLocalStorage()
        renderAllData()
    } else {
        fetchData()
    }
}

function fetchData() {
    console.log("Fetch Data")

    fetch(`https://api.punkapi.com/v2/beers?page=${allPage}&per_page=${pageSize}`).then(async (res) => {
```

```javascript
        let data = await res.json()
        console.log(data);

        data.forEach(element => {
            localDataArray.push(element)
        });

        renderAllData()
        writeLocalStorage()
    })
}

function renderAllData() {
    localDataArray.forEach(element => {
        dataListEle.innerHTML += `
        <div id="dataCell" onclick="clickHandling(${element.id})">
            <img src="http://cleanswifter.com/wp-content/uploads/2016/07/beer.png" alt="" srcset="">
            <div id="info">
                <h2>${element.name}</h2>
                <p>${element.description}</p>
            </div>
        </div>
        `
    });

    dataLoading = true
}

function writeLocalStorage() {
    let localData = JSON.stringify(localDataArray)
    localStorage.setItem("beerLocalData", localData)
}

function readLocalStorage() {
    console.log("Read Local Data")

    let local = localStorage.getItem("beerLocalData")
    let data = JSON.parse(local)

    console.log(data)
```

```javascript
    data.forEach(element => {
        localDataArray.push(element)
    })
}

function isHaveLocalData() {
    let local = localStorage.getItem("beerLocalData")
    let data = JSON.parse(local)

    if (data === null) return false
    else return true
}



function clickHandling(selecrtedID) {

    localDataArray.forEach(element => {
        if (element.id === selecrtedID) {
            renderDetailData(element)
        }
    });

}

function renderDetailData(data) {
    console.log("Clicked Data: ", data)

    beerImageProdect.src = data.image_url
    nameDetailProduct.innerHTML = data.name
    dateDetailProduct.innerHTML = data.first_brewed
    descriptionDetailProduct.innerHTML = data.description
}


dataListEle.addEventListener("scroll", (event) => {
    const pageNumberEle = document.getElementById("pageNumber")

    const { scrollTop, clientHeight, scrollHeight } = dataListEle;
```

```javascript
      // console.log(scrollWrapper.scrollTop)

    if (clientHeight + scrollTop >= scrollHeight * 0.95) {
       allPage += 1;
       if (dataLoading) {
          fetchData();
          console.log("Loading new page")
       }
       dataLoading = false
    }


})



init();
```

2 Result

Find your favorite 🥂

Buzz
A light, crisp and bitter IPA brewed with English an...

Trashy Blonde
A titillating, neurotic, peroxide punk of a Pale Ale. ...

Berliner Weisse With Yuz...
Japanese citrus fruit intensifies the sour nature of ...

Pilsen Lager
Our Unleash the Yeast series was an epic experim...

Avery Brown Dredge
An Imperial Pilsner in collaboration with beer write...

Electric India
Re-brewed as a spring seasonal, this beer – which ...

AB:12
An Imperial Black Belgian Ale aged in old Invergor...

Fake Lager
Fake is the new black. Fake is where it is at. Fake ...

AB:07
Whisky cask-aged imperial scotch ale. Beer perfec...

Bramling X

CRAFT BEER FOR THE PEOPLE
BREWDOG

KEG ONLY

Buzz

09/2007

A light, crisp and bitter IPA brewed with
English and American hops. A small
batch brewed only once.

contributor

(Sam Mason)