**Отчет по лабораторной работе № 7 по курсу**

**"Разработка Интернет-Приложений"**

Выполнила:

Студентка группы

ИУ5-55Б

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**Задание:**

Разработать пользовательский интерфейс для работы с API

**Текст программы:**

Index.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"> |
|  | <link rel="stylesheet" href="./style.css"> |
|  | <title>Погода</title> |
|  | </head> |
|  |  |
|  | <body> |
|  | <div class="wrapper"> |
|  | <div class="headr"> |
|  | <div class="header\_text"> |
|  | <img src="http://cdn.onlinewebfonts.com/svg/download\_155039.png" alt="weather" class="header\_img"> |
|  | <h1 id="header\_weather\_txt">Погода</h1> |
|  | </div> |
|  | <div class="header\_input"> |
|  | <input id="header\_input\_city\_search" type="text" placeholder="Введите город..."> |
|  | <button id="header\_search\_button"> |
|  | <img src="./pictures/search.svg" alt="weather" id="header\_search\_button\_img"> |
|  | </button> |
|  | </div> |
|  | </div> |
|  | <div class="content"> |
|  |  |
|  | </div> |
|  | </div> |
|  |  |
|  | </body> |
|  | <script src="./script.js"></script> |
|  |  |
|  | </html> |

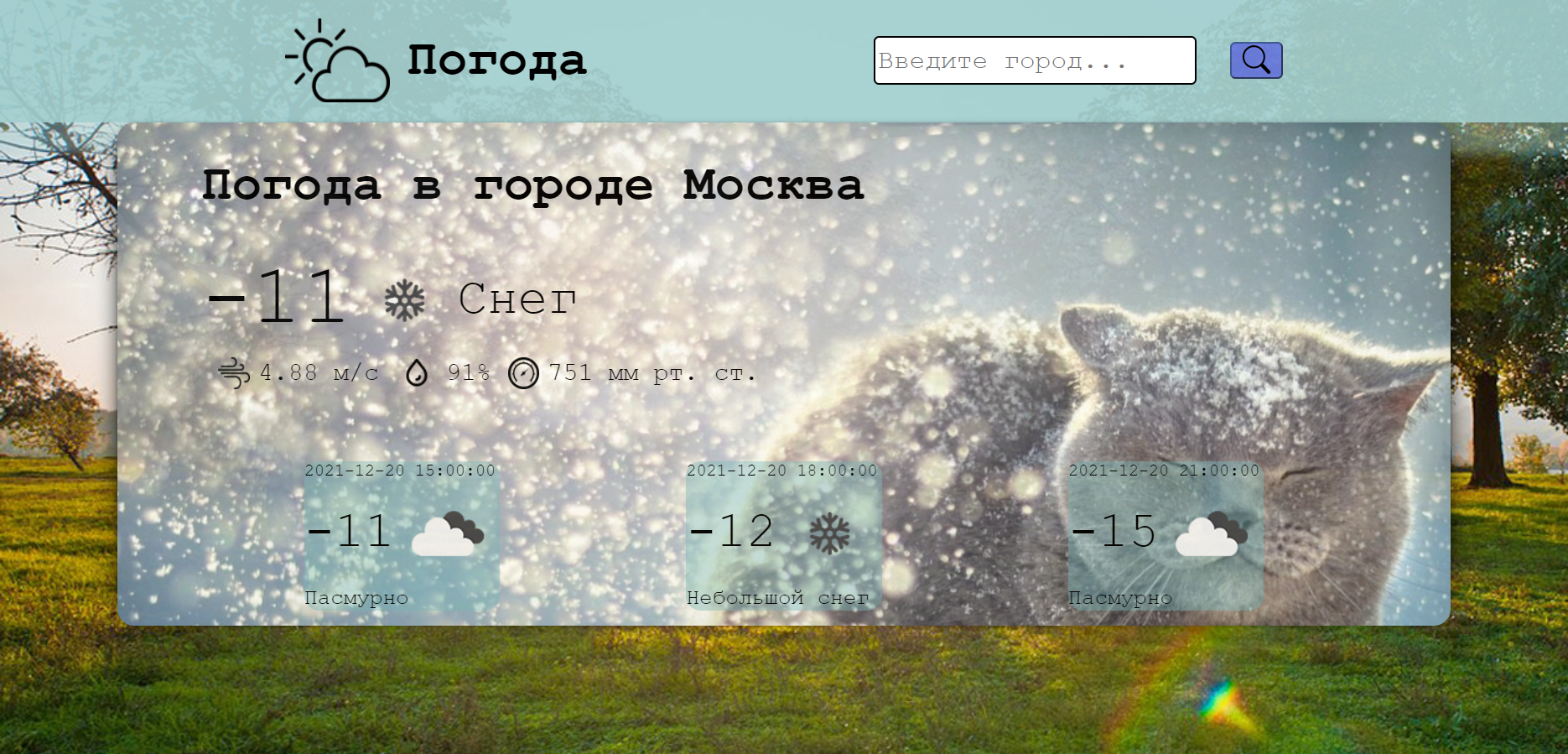
Script.js

|  |
| --- |
| const weather\_url = new URL("https://api.openweathermap.org/data/2.5/weather"); |
|  | const forecast\_url = new URL( |
|  | "https://api.openweathermap.org/data/2.5/forecast" |
|  | ); |
|  |  |
|  | const params = { |
|  | q: "Москва", |
|  | units: "metric", |
|  | lang: "ru", |
|  | appid: "fa0cc65a38ebbb9b2e9708775a5d88f6", |
|  | }; |
|  |  |
|  |  |
|  | function AddParamsForUrl(url, params) { |
|  | Object.entries(params).forEach(([key, val]) => { |
|  | url.searchParams.append(key, val); |
|  | }); |
|  | } |
|  |  |
|  | function ChangeWeatherBackground(str) { |
|  | switch (str.slice(0, 2)) { |
|  | case "01": //солнечно |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://img2.goodfon.ru/wallpaper/nbig/5/26/morning-sun-luchi-polyana-utro.jpg')"; |
|  | break; |
|  | case "02": //partially облачно |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://pbs.twimg.com/media/DmDHmZmX4AAfTok.jpg:large')"; |
|  | break; |
|  | case "03": //облачно |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('http://s4.fotokto.ru/photo/full/282/2820602.jpg')"; |
|  | break; |
|  | case "04": //mainly облачно |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://s1.1zoom.ru/b5050/538/400201-serjio-serjik\_1920x1200.jpg')"; |
|  | break; |
|  | case "09": //дождь |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://stihi.ru/pics/2020/09/18/790.jpg')"; |
|  | break; |
|  | case "10": //дождь |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://livelyplanet.ru/uploads/posts/2015-09/1441648969\_elitefon.ru\_5006.jpg')"; |
|  | break; |
|  | case "11": //гроза |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://cdn.hipwallpaper.com/i/43/14/KznGh7.jpg')"; |
|  | break; |
|  | case "13": //снег |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://w-dog.ru/wallpapers/1/51/320861618196064/zhivotnye-sneg-zima-kot.jpg')"; |
|  | break; |
|  | case "50": //туман |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://cdn.pixabay.com/photo/2016/11/19/15/44/autumn-1839969\_1280.jpg')"; |
|  | break; |
|  | default: |
|  | document.getElementsByClassName( |
|  | "content" |
|  | )[0].style.backgroundImage = "url('https://puzzleit.ru/files/puzzles/220/219718/\_original.jpg')"; |
|  | break; |
|  | } |
|  | } |
|  |  |
|  | function temperature(num) { |
|  | return num > 0 ? `+${Math.round(num)}` : `${Math.round(num)}`; |
|  | } |
|  |  |
|  | function FillCurrentWeather(data) { |
|  | ChangeWeatherBackground(data.weather[0].icon); |
|  | document.getElementsByClassName("content\_main\_h1")[0].innerHTML = `Погода в городе ${data.name}`; |
|  | document.getElementById("current\_temp").innerHTML = temperature(data.main.temp); |
|  | document.getElementById("temp\_info\_img").innerHTML = `<img src="https://openweathermap.org/img/wn/${data.weather[0].icon}@2x.png"} />`; |
|  | let condition\_str = `${data.weather[0].description}`; |
|  | document.getElementById("current\_condition").innerHTML = condition\_str[0].toUpperCase() + condition\_str.slice(1); |
|  | document.getElementById("wind\_info").innerHTML = `${data.wind.speed} м/с`; |
|  | document.getElementById("humidity\_info").innerHTML = `${data.main.humidity}%`; |
|  | document.getElementById("pressure\_info").innerHTML = `${Math.round(data.main.pressure / 1.33322)} мм рт. ст.`; |
|  | } |
|  |  |
|  | function FillForecast(data) { |
|  | for (let i = 0; i < 3; i++) { |
|  | document.getElementsByClassName("cast\_weather\_date")[i].innerHTML = data.list[i].dt\_txt; |
|  | document.getElementsByClassName("block\_weather\_temp")[i].innerHTML = temperature(data.list[i].main.temp); |
|  | document.getElementsByClassName("block\_weather\_img")[i].innerHTML = `<img src="https://openweathermap.org/img/wn/${data.list[i].weather[0].icon}@2x.png"} />`; |
|  | document.getElementsByClassName("block\_weather\_condition")[i].innerHTML = data.list[i].weather[0].description[0].toUpperCase() + data.list[i].weather[0].description.slice(1); |
|  |  |
|  | } |
|  | } |
|  |  |
|  | async function GetData(url) { |
|  | return fetch(url) |
|  | .then((response) => response.json()) |
|  | } |
|  |  |
|  | function ErrorHappened(err) { |
|  | document.getElementsByClassName("content")[0].innerHTML = '<h1 class="content\_main\_h1">Погода в городе Москва</h1>'; |
|  | document.getElementsByClassName("content\_main\_h1")[0].innerHTML = "Город не найден"; |
|  | document.getElementsByClassName("content")[0].style.backgroundImage = "url('https://i.ytimg.com/vi/X5oGiXvIhxo/maxresdefault.jpg')"; |
|  | } |
|  |  |
|  | function FillContent() { |
|  | document.getElementsByClassName("content")[0].innerHTML = ` |
|  | <div class="content\_main\_info"> |
|  | <h1 class="content\_main\_h1">Погода в городе Москва</h1> |
|  | <div class="content\_temperature\_info"> |
|  | <span id="current\_temp">+5</span> |
|  | <div id="temp\_info\_img"></div> |
|  | <span id="current\_condition">Ясно</span> |
|  | </div> |
|  | <div class="content\_additional\_info"> |
|  | <div class="content\_additional\_info\_block"> |
|  | <img src="http://cdn.onlinewebfonts.com/svg/download\_418661.png" alt="wind" class="add\_info\_img"> |
|  | <span id="wind\_info">4м/с</span></div> |
|  | <div class="content\_additional\_info\_block"> |
|  | <img src="https://i7.uihere.com/icons/182/779/608/air-humidity-6bb208d98d67634b449c5dbcf2007eec.png" alt="humidity" class="add\_info\_img\_humidity"> |
|  | <span id="humidity\_info">45%</span></div> |
|  | <div class="content\_additional\_info\_block"> |
|  | <img src="https://svgsilh.com/png-1024/1294818.png" alt="pressure" class="add\_info\_img"> |
|  | <span id="pressure\_info">767мм рт. ст.</span></div> |
|  | </div> |
|  | </div> |
|  | <div class="content\_time\_blocks"> |
|  | <div class="content\_block\_cast" id="cast\_0"> |
|  | <div class="cast\_weather\_date"><span>2021-04-09 21:00:00</span></div> |
|  | <div class="cast\_block\_temp"> |
|  | <span class="block\_weather\_temp">+4</span> |
|  | <div class="block\_weather\_img"></div> |
|  | </div> |
|  | <div class="block\_weather\_condition"><span>Ясно</span></div> |
|  | </div> |
|  | <div class="content\_block\_cast" id="cast\_1"> |
|  | <div class="cast\_weather\_date"><span>2021-04-10 00:00:00</span></div> |
|  | <div class="cast\_block\_temp"> |
|  | <span class="block\_weather\_temp">+2</span> |
|  | <div class="block\_weather\_img"></div> |
|  | </div> |
|  | <div class="block\_weather\_condition"><span>Ясно</span></div> |
|  | </div> |
|  | <div class="content\_block\_cast" id="cast\_2"> |
|  | <div class="cast\_weather\_date"><span>2021-04-10 03:00:00</span></div> |
|  | <div class="cast\_block\_temp"> |
|  | <span class="block\_weather\_temp">+1</span> |
|  | <div class="block\_weather\_img"></div> |
|  | </div> |
|  | <div class="block\_weather\_condition"><span>Ясно</span></div> |
|  | </div> |
|  | </div>`; |
|  | } |
|  |  |
|  | document.addEventListener("DOMContentLoaded", () => { |
|  | FillContent(); |
|  | AddParamsForUrl(weather\_url, params); |
|  | AddParamsForUrl(forecast\_url, params); |
|  | GetData(weather\_url).then((data) => { |
|  | FillCurrentWeather(data); |
|  | }); |
|  | GetData(forecast\_url) |
|  | .then((data) => { |
|  | FillForecast(data); |
|  | }) |
|  | .catch((err) => { |
|  | ErrorHappened(); |
|  | }); |
|  | }); |
|  |  |
|  | function FindCity() { |
|  | FillContent(); |
|  | let city = document.getElementById("header\_input\_city\_search").value; |
|  | if (city === "") city = "Москва"; |
|  | weather\_url.searchParams.delete("q"); |
|  | weather\_url.searchParams.append("q", city); |
|  | forecast\_url.searchParams.delete("q"); |
|  | forecast\_url.searchParams.append("q", city); |
|  |  |
|  | GetData(weather\_url) |
|  | .then((data) => { |
|  | FillCurrentWeather(data); |
|  | }) |
|  | .catch((err) => { |
|  | ErrorHappened(err); |
|  | return; |
|  | }); |
|  | GetData(forecast\_url).then((data) => { |
|  | FillForecast(data); |
|  | }); |
|  | } |
|  |  |
|  | document.getElementById("header\_search\_button").addEventListener("click", () => { |
|  | FindCity(); |
|  | }); |
|  |  |
|  |  |
|  | document.getElementById("header\_input\_city\_search").addEventListener("keydown", (e) => { |
|  | if (e.code === "Enter") |
|  | FindCity(); |
|  | }); |

Style.css

|  |
| --- |
| body { |
|  | font-family: Courier New, monospace; |
|  | margin: 0 auto; |
|  | } |
|  |  |
|  | .wrapper { |
|  | min-height: 100vh; |
|  | background: url("https://gagarin.mos.ru/newsbel.by-5.05.2016-WPEy21ehRoKYeyJWoT6WoYjIdi2V6bd2.jpg") no-repeat center center fixed; |
|  | background-size: cover; |
|  | display: flex; |
|  | flex-direction: column; |
|  | align-items: center; |
|  | } |
|  |  |
|  | .header\_img { |
|  | width: 100px; |
|  | height: 80px; |
|  | border: none; |
|  | } |
|  |  |
|  | .headr { |
|  | display: flex; |
|  | justify-content: space-evenly; |
|  | flex-direction: row; |
|  | align-items: center; |
|  | background-color: rgba(162, 206, 206, 0.925); |
|  | box-shadow: 0px 0px 10px 30px rgba(162, 206, 206, 0.445); |
|  | width: 100%; |
|  | } |
|  |  |
|  | .header\_text { |
|  | display: flex; |
|  | justify-content: space-evenly; |
|  | flex-direction: row; |
|  | align-items: center; |
|  | } |
|  |  |
|  | #header\_weather\_txt { |
|  | font-size: 3rem; |
|  | margin-left: 1rem; |
|  | } |
|  |  |
|  | #header\_search\_button { |
|  | border-radius: 5px; |
|  | width: 50px; |
|  | height: 35px; |
|  | border-color: rgba(38, 69, 104, 0.623); |
|  | background-color: rgba(59, 56, 231, 0.534); |
|  | } |
|  |  |
|  | #header\_search\_button\_img { |
|  | width: 30px; |
|  | height: 27px; |
|  | } |
|  |  |
|  | .header\_input { |
|  | display: flex; |
|  | justify-content: space-evenly; |
|  | flex-direction: row; |
|  | align-items: center; |
|  | } |
|  |  |
|  | #header\_input\_city\_search { |
|  | height: 40px; |
|  | width: 300px; |
|  | border-radius: 5px; |
|  | font-size: 25px; |
|  | font-family: Courier New, monospace; |
|  | border-color: black; |
|  | margin-right: 2rem; |
|  | } |
|  |  |
|  | .content { |
|  | display: flex; |
|  | flex-direction: column; |
|  | background-color: rgba(82, 123, 131, 0.774); |
|  | opacity: 0.95; |
|  | width: 85%; |
|  | min-height: 30rem; |
|  | background-size: auto; |
|  | border-radius: 1rem; |
|  | box-shadow: 0 1px 4px rgb(0 0 0 / 30%), -23px 0 20px -23px rgb(0 0 0 / 80%), 23px 0 20px -23px rgb(0 0 0 / 80%), 0 0 40px rgb(0 0 0 / 10%) inset; |
|  | } |
|  |  |
|  | #temp\_info\_img { |
|  | width: 100px; |
|  | height: 100px; |
|  | border: none; |
|  | } |
|  |  |
|  | .block\_weather\_img { |
|  | width: 100px; |
|  | height: 100px; |
|  | border: none; |
|  | } |
|  |  |
|  | .content\_time\_blocks { |
|  | display: flex; |
|  | justify-content: space-evenly; |
|  | flex-direction: row; |
|  | margin-top: 3rem; |
|  | flex-wrap: wrap; |
|  | } |
|  |  |
|  | .content\_temperature\_info { |
|  | display: flex; |
|  | flex-direction: row; |
|  | align-items: center; |
|  | } |
|  |  |
|  | .content\_additional\_info { |
|  | display: flex; |
|  | flex-direction: row; |
|  | align-items: center; |
|  | flex-wrap: wrap; |
|  | } |
|  |  |
|  | .content\_additional\_info\_block { |
|  | display: flex; |
|  | flex-direction: row; |
|  | align-items: center; |
|  | } |
|  |  |
|  | .add\_info\_img { |
|  | width: 30px; |
|  | height: 30px; |
|  | border: none; |
|  | margin-left: 1rem; |
|  | } |
|  |  |
|  | .add\_info\_img\_humidity { |
|  | width: 40px; |
|  | height: 40px; |
|  | border: none; |
|  | margin-left: 1rem; |
|  | } |
|  |  |
|  | .content\_main\_h1 { |
|  | font-size: 3rem; |
|  | } |
|  |  |
|  | #current\_temp { |
|  | font-size: 5rem; |
|  | } |
|  |  |
|  | #current\_condition { |
|  | font-size: 3rem; |
|  | } |
|  |  |
|  | #wind\_info { |
|  | font-size: 1.5rem; |
|  | margin-left: 0.5rem; |
|  | } |
|  |  |
|  | #humidity\_info { |
|  | font-size: 1.5rem; |
|  | margin-left: 0.5rem; |
|  | } |
|  |  |
|  | #pressure\_info { |
|  | font-size: 1.5rem; |
|  | margin-left: 0.5rem; |
|  | } |
|  |  |
|  | .cast\_weather\_date { |
|  | font-size: 1rem; |
|  | } |
|  |  |
|  | .block\_weather\_temp { |
|  | font-size: 3rem; |
|  | } |
|  |  |
|  | .block\_weather\_condition { |
|  | font-size: 1.3rem; |
|  | } |
|  |  |
|  | .content\_main\_info { |
|  | margin-left: 5rem; |
|  | } |
|  |  |
|  | .cast\_block\_temp { |
|  | display: flex; |
|  | flex-direction: row; |
|  | align-items: center; |
|  | } |
|  |  |
|  | .content\_block\_cast { |
|  | margin-top: 1rem; |
|  | background-color: rgba(120, 187, 192, 0.425); |
|  | border-radius: 0.9rem; |
|  | } |
|  |  |
|  | @media screen and (max-width:700px) { |
|  | .headr { |
|  | flex-direction: column; |
|  | padding-bottom: 1rem; |
|  | } |
|  | } |
|  |  |
|  | @media screen and (max-width:650px) { |
|  | .content\_main\_info { |
|  | display: flex; |
|  | flex-direction: column; |
|  | align-items: center; |
|  | margin-left: 0rem; |
|  | text-align: center; |
|  | } |
|  | .content { |
|  | align-items: center; |
|  | align-self: center; |
|  | } |
|  | .content\_additional\_info { |
|  | margin-left: 5rem; |
|  | } |
|  | } |
|  |  |
|  | @media screen and (max-width:600px) { |
|  | #current\_temp { |
|  | font-size: 3rem; |
|  | } |
|  | #current\_condition { |
|  | font-size: 2rem; |
|  | } |
|  | } |
|  |  |
|  | @media screen and (max-width:450px) { |
|  | .content\_main\_h1 { |
|  | font-size: 2rem; |
|  | } |
|  | .content\_additional\_info { |
|  | margin-left: 3rem; |
|  | } |
|  | #current\_temp { |
|  | font-size: 3rem; |
|  | } |
|  | #current\_condition { |
|  | font-size: 2rem; |
|  | } |
|  | #wind\_info { |
|  | font-size: 1.2rem; |
|  | } |
|  | #humidity\_info { |
|  | font-size: 1.2rem; |
|  | } |
|  | #pressure\_info { |
|  | font-size: 1.2rem; |
|  | } |
|  | .block\_weather\_temp { |
|  | font-size: 2rem; |
|  | } |
|  | } |
|  |  |
|  | @media screen and (max-width:400px) { |
|  | #header\_input\_city\_search { |
|  | height: 40px; |
|  | width: 200px; |
|  | font-size: 20px; |
|  | margin-right: 1.5rem; |
|  | } |
|  | #current\_condition { |
|  | font-size: 1.5rem; |
|  | } |
|  | #current\_temp { |
|  | font-size: 2.5rem; |
|  | } |
|  | } |
|  |  |
|  | @media screen and (max-width:350px) { |
|  | .content\_additional\_info { |
|  | margin-left: 2rem; |
|  | } |
|  | #current\_condition { |
|  | font-size: 1.3rem; |
|  | } |
|  | #current\_temp { |
|  | font-size: 2rem; |
|  | } |
|  | } |
|  |  |
|  | @media screen and (max-width:330px) { |
|  | .content\_additional\_info { |
|  | margin-left: 1rem; |
|  | } |
|  | #current\_condition { |
|  | font-size: 1.1rem; |
|  | } |
|  | #current\_temp { |
|  | font-size: 2rem; |
|  | } |
|  |  |

**Пример выполнения**

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