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Баумана**

Факультет «Информатика и системы управления»

Отчёт по лабораторной работе №7
по курсу «Разработка интернет-приложений»

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Описание задания:

1. Используя открытое api, сверстать страницу погоды. Можно захардкодить Москву как изначальный город.
2. Нужно реализовать поиск
3. Можно использовать <https://openweathermap.org/current> в качестве api
4. Приложение должно быть адаптивным
5. Дизайн нужно придумать самому

Текст программы:

script.js:

```
function addParams(params, url) {
    let paramArr = Object.entries(params);
    for (const [key, value] of paramArr) {
        url.searchParams.append(key, value);
    }
}

const params = {
    q: 'Москва',
    appid: 'aed6bd52ec5ebf5b1f40aa5ea739aad6',
    lang: 'ru',
    units: 'metric',
};

const cur_url = new URL('https://api.openweathermap.org/data/2.5/weather');
const forecast_url = new URL('https://api.openweathermap.org/data/2.5/forecast');

document.addEventListener('DOMContentLoaded', () => {
    addParams(params, cur_url);
    addParams(params, forecast_url);
    getWeatherData(cur_url).then((w_data) => {
        treatCurrentWeather(w_data);
    });
    getWeatherData(forecast_url).then((w_data) => {
        treatForecastWeather(w_data);
    });
});

function getWeatherData(url) {
    return fetch(url)
        .then((w_data) => w_data.json())
        .then((w_data) => w_data)
}

const btn = document.getElementsByClassName('navbar-searchContainer-button')[0];
const searchField = document.getElementsByClassName('navbar-searchContainer-searchField')[0];

function changeCity(cur_url, forecast_url, cityName) {
    cur_url.searchParams.delete('q');
    forecast_url.searchParams.delete('q');
    cur_url.searchParams.append('q', cityName);
    forecast_url.searchParams.append('q', cityName);
}

function treatImage(data) {
    switch (data.weather[0].icon.substring(0, 2)) {
        case '01':
```

```

        document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/sunny.jpg')";
        break;
        case '02':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/lil_cloudy.jpg')";
            break;
        case '03':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/cloudy.jpg')";
            break;
        case '04':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/very_cloudy.jpg')";
            break;
        case '09':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/very_rainy.jpg')";
            break;
        case '10':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/rainy.jpg')";
            break;
        case '11':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/thunder.jpg')";
            break;
        case '13':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/snowy.jpg')";
            break;
        case '50':
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/misty.jpg')";
            break;
        default:
            document.getElementsByClassName('content-
infoCard')[0].style.backgroundImage = "url('images/sunny.jpg')";
            break;
    }
}

function capitalize(str) {
    let word_arr = str.split(' ');
    let res = "";
    for (let i = 0; i < word_arr.length; i++) {
        res += word_arr[i][0].toUpperCase() + word_arr[i].slice(1);
        if (i !== word_arr.length - 1)
            res += ' ';
    }
    return res;
}

function treatCurrentWeather(data) {
    treatImage(data);
    document.getElementsByClassName('content-infoCard-main-city')[0].innerHTML =
data.name;
    document.getElementsByClassName('temp')[0].innerHTML = (data.main.temp > 0 ?
`+${Math.round(data.main.temp)}` : `${Math.round(data.main.temp)}`) + '°C';
    document.getElementsByClassName('content-infoCard-additional-icon')[0].src =
`https://openweathermap.org/img/wn/${data.weather[0].icon}@4x.png`;
    document.getElementsByClassName('content-infoCard-additional-info-
status')[0].innerHTML = capitalize(data.weather[0].description);
    document.getElementsByClassName('content-infoCard-additional-info-
humidity')[0].innerHTML = 'Влажность: ' + data.main.humidity + ' %';
    document.getElementsByClassName('content-infoCard-additional-info-
cloudiness')[0].innerHTML = 'Облачность: ' + data.clouds.all + ' %';
    document.getElementsByClassName('content-infoCard-additional-info-

```

```

wind')[0].innerHTML = 'Ветер: ' + data.wind.speed + ' м/сек';
}

function treatForecastWeather(data) {
  for (let i = 0; i < 5; i++) {
    document.getElementsByClassName('content-infoCard-forecast-card-time')[i].innerHTML = data.list[i].dt_txt.split(' ')[0];
    document.getElementsByClassName('content-infoCard-forecast-card-date')[i].innerHTML = data.list[i].dt_txt.split(' ')[1];
    document.getElementsByClassName('content-infoCard-forecast-card-temp')[i].innerHTML = (data.list[i].main.temp > 0 ?
`+${Math.round(data.list[i].main.temp)}` : `${Math.round(data.list[i].main.temp)}`)
+ '°C';
    document.getElementsByClassName('content-infoCard-forecast-card-icon')[i].src =
`https://openweathermap.org/img/wn/${data.list[i].weather[0].icon}@2x.png`;
  }
}

btn.onclick = () => {
  let cityName = searchField.value;
  changeCity(cur_url, forecast_url, cityName);
  getWeatherData(cur_url).then((w_data) => {
    treatCurrentWeather(w_data);
  })
  .catch(() => {
    alert('Неверный ввод! Пожалуйста, повторите попытку.')
  });
  getWeatherData(forecast_url).then((w_data) => {
    treatForecastWeather(w_data);
  });
};

searchField.addEventListener('keyup', (event) => {
  if (event.key == 'Enter')
    btn.onclick();
});

```

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>Document</title>
</head>

<body>
  <div class="navbar">
    <span class="navbar-header">Weather</span>
    <div class="navbar-searchContainer">
      <input class="navbar-searchContainer-searchField"
placeholder="Search..."
      <input type="button" class="navbar-searchContainer-button">
    </div>
  </div>
  <div class="content">
    <div class="content-infoCard">
      <div class="content-infoCard-main">
        <div class="content-infoCard-main-city">
        </div>
        <div class="temp">
        </div>
      </div>
      <div class="content-infoCard-additional">
        <img class="content-infoCard-additional-icon">
        <div class="content-infoCard-additional-info">
          <span class="content-infoCard-additional-info-status"></span>
          <span class="content-infoCard-additional-info-humidity"></span>
          <span class="content-infoCard-additional-info-
cloudiness"></span>
          <span class="content-infoCard-additional-info-wind"></span>
        </div>
      </div>
      <div class="content-infoCard-forecast">
        <div class="content-infoCard-forecast-card" id="1">
          <span class="content-infoCard-forecast-card-time"></span>
          <span class="content-infoCard-forecast-card-date"></span>
          <span class="content-infoCard-forecast-card-temp"></span>
          <img class="content-infoCard-forecast-card-icon">
        </div>
        <div class="content-infoCard-forecast-card" id="2">
          <span class="content-infoCard-forecast-card-time"></span>
          <span class="content-infoCard-forecast-card-date"></span>
          <span class="content-infoCard-forecast-card-temp"></span>
          <img class="content-infoCard-forecast-card-icon">
        </div>
        <div class="content-infoCard-forecast-card" id="3">
          <span class="content-infoCard-forecast-card-time"></span>
          <span class="content-infoCard-forecast-card-date"></span>
          <span class="content-infoCard-forecast-card-temp"></span>
          <img class="content-infoCard-forecast-card-icon">
        </div>
        <div class="content-infoCard-forecast-card" id="4">
          <span class="content-infoCard-forecast-card-time"></span>
          <span class="content-infoCard-forecast-card-date"></span>
          <span class="content-infoCard-forecast-card-temp"></span>
          <img class="content-infoCard-forecast-card-icon">
        </div>
        <div class="content-infoCard-forecast-card" id="5">
          <span class="content-infoCard-forecast-card-time"></span>
          <span class="content-infoCard-forecast-card-date"></span>

```

```

        <span class="content-infoCard-forecast-card-temp"></span>
        <img class="content-infoCard-forecast-card-icon">
      </div>
    </div>
  </div>
</body>

<script src="./script.js"></script>

</html>

```

style.css:

```

@font-face {
  font-family: Wave-Regular;
  src: url(fonts/Wave-Regular.ttf);
}

html {
  background-color: #d9c3cf;
  padding: 0px;
  margin: 0px;
}

body {
  margin: 0px;
}

.navbar {
  display: flex;
  align-items: center;
  background-color: #d9c3cf;
  margin: 0px;
  height: 100px;
  width: 100%;
}

.navbar-header {
  font-size: 50px;
  font-family: Wave-Regular;
  color: rgb(160, 88, 189);
  font-weight: 600;
  margin-left: 10px;
}

.navbar-searchContainer-searchField {
  font-size: 30px;
  height: 50px;
  width: 450px;
  padding-left: 20px;
  border-radius: 10px;
}

.navbar-searchContainer {
  display: flex;
  justify-content: flex-end;
  align-items: center;
  height: 100px;
  width: 100%;
  text-align: right;
}

.navbar-searchContainer-button {
  background-image: url('icons/magnifier-1_icon-icons.com_56924.svg');
}

```

```
background-repeat: no-repeat;
background-size: cover;
width: 60px;
height: 60px;
margin-left: 10px;
border-radius: 10px;
margin-right: 10px;
}

.content {
  display: flex;
  justify-content: center;
  align-items: center;
}

.content-infoCard {
  width: 80%;
  height: 550px;
  background: repeat center center fixed;
  background-color: white;
  border-radius: 50px;
  margin-top: 50px;
  font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-serif;
  font-size: 70px;
  text-shadow: 4px 2px 1px #181010;
  color: rgb(136, 252, 90);
  overflow: hidden;
}

.content-infoCard-main {
  display: flex;
  align-items: center;
  padding-top: 40px;
}

.content-infoCard-main-city {
  margin-left: 8%;
}

.temp {
  margin-left: 10px;
  display: block;
  font-size: 50px;
}

.content-infoCard-additional {
  height: 170px;
  display: flex;
  align-items: center;
  padding-top: 20px;
  padding-left: 6%;
}

.content-infoCard-additional-icon {
  width: 120px;
  height: 120px;
}

.content-infoCard-additional-info {
  font-size: 30px;
  display: flex;
  flex-direction: column;
  justify-content: space-between;
}

.content-infoCard-forecast {
  display: flex;
  justify-content: space-around;
```

```

        align-items: center;
        height: 235px;
        font-size: 20px;
    }

    .content-infoCard-forecast-card {
        border: 4px solid rgb(160, 88, 189);
        background-color: rgba(160, 88, 189, 0.6);
        border-radius: 10px;
        display: flex;
        height: 180px;
        padding: 10px;
        align-items: center;
        flex-direction: column;
    }

    .content-infoCard-forecast-card-temp {
        margin-top: 10px;
    }

    @media screen and (max-width: 860px) {
        .navbar-header {
            font-size: 40px;
        }
        .content-infoCard-additional-info {
            font-size: 20px;
        }
        .navbar-searchContainer-searchField {
            font-size: 20px;
            width: 50%;
        }
        .content-infoCard {
            width: 80%;
            height: 550px;
            background: repeat center center fixed;
            background-color: white;
            border-radius: 50px;
            margin-top: 50px;
            font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-
            serif;
            font-size: 50px;
            text-shadow: 4px 2px 1px #181010;
            color: rgb(136, 252, 90);
        }
        .temp {
            margin-left: 10px;
            display: block;
            font-size: 40px;
        }
    }

    @media screen and (max-width: 810px) {
        .content-infoCard {
            height: 100%;
            display: flex;
            flex-direction: column;
        }
        .content-infoCard-forecast {
            display: flex;
            justify-content: space-around;
            align-items: center;
            flex-direction: column;
            height: 700px;
            flex-wrap: wrap;
            font-size: 20px;
        }
        .content-infoCard-forecast-card {
            border: 4px solid rgb(160, 88, 189);

```



```

        background-color: rgba(160, 88, 189, 0.6);
        border-radius: 10px;
        display: flex;
        height: 180px;
        padding: 10px;
        align-items: center;
        flex-direction: column;
    }
}

@media screen and (max-width: 450px) {
    .navbar {
        display: flex;
        align-items: center;
        flex-direction: column;
        background-color: #d9c3cf;
        margin: 0px;
        height: 100px;
        width: 100%;
    }
    .content-infoCard {
        width: 80%;
        background: repeat center center fixed;
        background-color: white;
        border-radius: 50px;
        margin-top: 50px;
        font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-
serif;
        font-size: 40px;
        text-shadow: 4px 2px 1px #181010;
        color: rgb(136, 252, 90);
    }
    .temp {
        margin-left: 10px;
        display: block;
        font-size: 30px;
    }
    .content-infoCard-additional-icon {
        width: 80px;
        height: 80px;
    }
    .content-infoCard-additional {
        padding-top: 0px;
    }
    .content-infoCard-additional-info {
        font-size: 15px;
    }
}
}

```

Экранные формы с примерами выполнения программы:

