

**САНКТ-ПЕТЕРБУРГСКИЙ НАЦИОНАЛЬНЫЙ
ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО**

Дисциплина: Фронт-энд разработка

Отчет

Домашняя работа №5

Выполнил:

Русинов Василий

Группа К3440

**Проверил:
Добряков Д. И.**

Санкт-Петербург

2025 г.

Задача

В рамках данной работы Вам предстоит изучить основные команды пакетного менеджера NPM и научиться стартовать проект на Vue. Научиться работать с npm и vue на основе мануала: <https://docs.google.com/document/d/187UkgGNrcWqkb2aCGpkHTLgeozoElMqdVgVGMBOC9gk/edit?usp=sharing>.

Ход работы

Установка vue:

```
PS D:\WebstormProjects\ITMO-ACS-Frontend-2025\homeworks\K3440\Русинов Василий\hw5> npm install -g @vue/cli
npm warn deprecated inflight@1.0.6: This module is not supported, and leaks memory. Do not use it. Check out lru-cache if you want and powerful.
npm warn deprecated @babel/plugin-proposal-nullish-coalescing-operator@7.18.6: This proposal has been merged to the ECMAScript nullish-coalescing-operator instead.
npm warn deprecated @babel/plugin-proposal-class-properties@7.18.6: This proposal has been merged to the ECMAScript standard and ad.
npm warn deprecated source-map-url@0.4.1: See https://github.com/lydell/source-map-url#deprecated
npm warn deprecated rimraf@2.6.3: Rimraf versions prior to v4 are no longer supported
npm warn deprecated @babel/plugin-proposal-optional-chaining@7.21.0: This proposal has been merged to the ECMAScript standard instead.
npm warn deprecated urix@0.1.0: Please see https://github.com/lydell/urix#deprecated
npm warn deprecated rimraf@3.0.2: Rimraf versions prior to v4 are no longer supported
npm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
npm warn deprecated source-map-resolve@0.5.3: See https://github.com/lydell/source-map-resolve#deprecated
npm warn deprecated resolve-url@0.2.1: https://github.com/lydell/resolve-url#deprecated
npm warn deprecated apollo-server-plugin-base@3.7.2: The `apollo-server-plugin-base` package is part of Apollo Server v2 and v3, which are now found in the `@apollo/server` package. See https://www.apollographql.com/docs/apollo-server/previous-versions/
npm warn deprecated apollo-server-errors@3.3.1: The `apollo-server-errors` package is part of Apollo Server v2 and v3, which are now found in the `@apollo/server` package. See https://www.apollographql.com/docs/apollo-server/previous-versions/
npm warn deprecated apollo-datasource@3.3.2: The `apollo-datasource` package is part of Apollo Server v2 and v3, which are now found in the `@apollo/server` package. See https://www.apollographql.com/docs/apollo-server/previous-versions/
npm warn deprecated apollo-reporting-protobuf@3.4.0: The `apollo-reporting-protobuf` package is part of Apollo Server v2 and v3, which are now found in the `@apollo/usage-reporting-protobuf` package. See https://www.apollographql.com/docs/apollo-server/previous-versions/
npm warn deprecated apollo-server-env@4.2.1: The `apollo-server-env` package is part of Apollo Server v2 and v3, which are now found in the `@apollo/utils.fetcher` package. See https://www.apollographql.com/docs/apollo-server/previous-versions/
```

Инициализация проекта:

```
PS D:\WebstormProjects\ITMO-ACS-Frontend-2025\homeworks\K3440\Русинов Василий\hw5> npm init vue@latest

> npx
> create-vue

  Vue.js - The Progressive JavaScript Framework

  ▨ Project name (target directory):
    vue-project

  ▨ Select features to include in your project: (↑/↓ to navigate, space to select, a to toggle all, enter to confirm)
    TypeScript, Router (SPA development), Pinia (state management), ESLint (error prevention)

  ▨ Select experimental features to include in your project: (↑/↓ to navigate, space to select, a to toggle all, enter to confirm)
    none

  ▨ Skip all example code and start with a blank Vue project?
    Yes

Scaffolding project in D:\WebstormProjects\ITMO-ACS-Frontend-2025\homeworks\K3440\Русинов Василий\hw5\vue-project...
└ Done. Now run:
```

Установка зависимостей:

```
PS D:\WebstormProjects\ITMO-ACS-Frontend-2025\homeworks\K3440\Русинов Василий\hw5> cd vue-project
PS D:\WebstormProjects\ITMO-ACS-Frontend-2025\homeworks\K3440\Русинов Василий\hw5\vue-project> npm install

added 296 packages, and audited 297 packages in 45s

73 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
PS D:\WebstormProjects\ITMO-ACS-Frontend-2025\homeworks\K3440\Русинов Василий\hw5\vue-project> npm start

> vue-project@0.0.0 start
> vite --port 8080

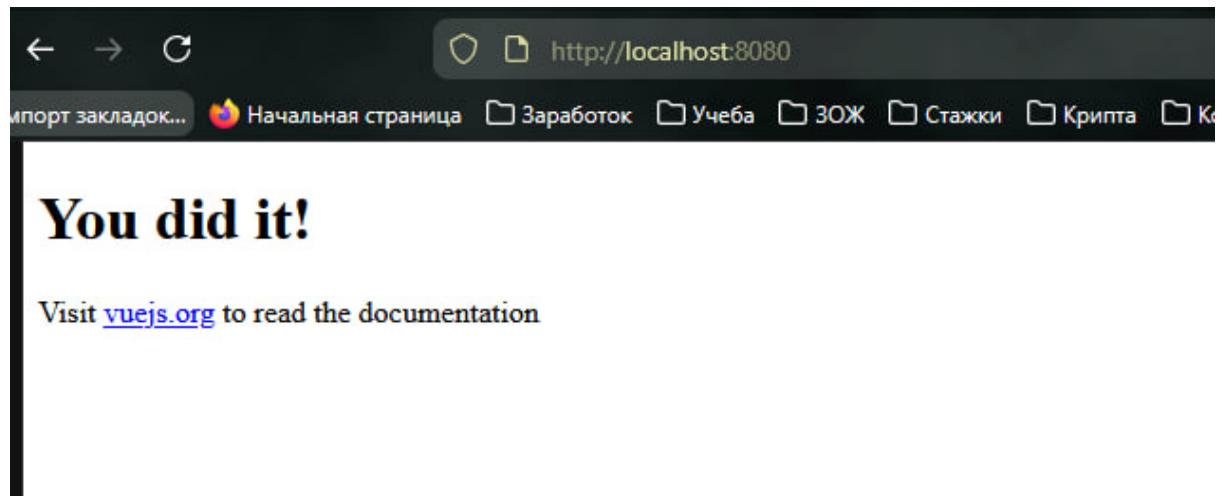
VITE v7.3.0 ready in 1951 ms

→ Local:  http://localhost:8080/
→ Network: use --host to expose
→ Vue DevTools: Open http://localhost:8080/_devtools__/ as a separate window
→ Vue DevTools: Press Alt(⌘)+Shift(⇧)+D in App to toggle the Vue DevTools
→ press h + enter to show help
```

Изменения в файле package.json:

```
  "scripts": {  
    "start": "vite --port 8080",  
    "dev": "vite",  
    "build": "vite build",  
    "preview": "vite preview",  
    "build-only": "vite build",  
    "type-check": "vue-tsc --build",  
    "lint": "eslint . --ext .vue,.js,.jsx,.cjs,.mjs --fix --ignore-path .gitignore"  
  },  
  "vite": {  
    "css": {  
      "preprocessorOptions": {  
        "postcss": {  
          "plugins": [  
            require("postcss-preset-env")({  
              stage: 3  
            })  
          ]  
        }  
      }  
    }  
  }  
}
```

Результат запуска проекта:



Установка утилит:

```
PS D:\WebstormProjects\ITMO-ACS-Frontend-2025\homeworks\K3440\Русинов Василий\hw5\vue-project> npm i axios pinia-persiste bootstrap -S  
added 26 packages, and audited 323 packages in 4s  
  
81 packages are looking for funding  
  run `npm fund` for details  
  
found 0 vulnerabilities
```

Файл api/instance.js:

The screenshot shows a code editor with a dark theme. The tab bar at the top has four tabs: package.json, index.html, instance.js (which is currently active), and rentals.js. The code in the editor is as follows:

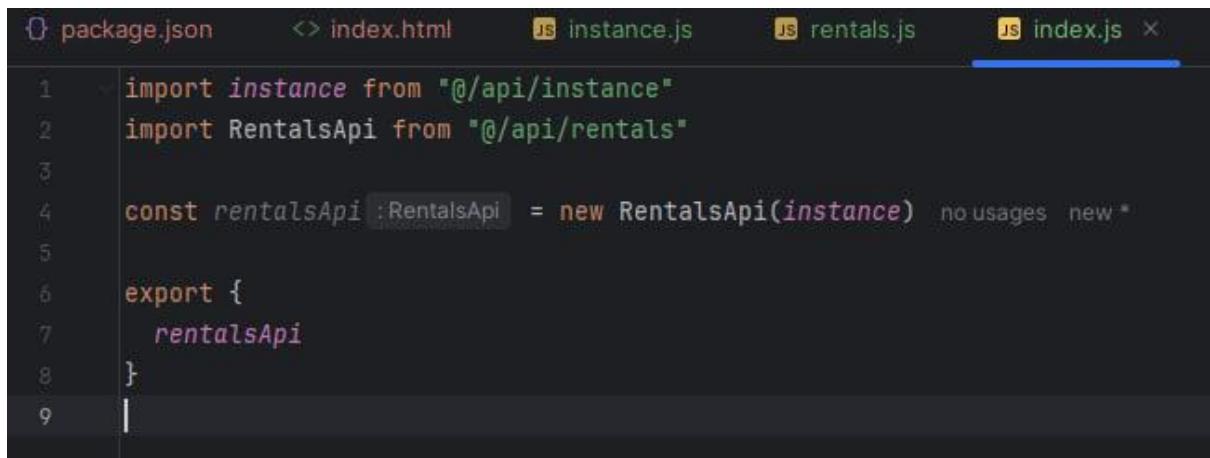
```
1 import axios from 'axios'
2
3 const apiURL :string = 'http://localhost:3000'
4
5 const instance :AxiosInstance = axios.create({
6   baseURL: apiURL
7 })
8
9 export default instance no usages new *
```

Файл api/rentals.js:

The screenshot shows a code editor with a dark theme. The tab bar at the top has four tabs: package.json, index.html, instance.js, and rentals.js (which is currently active). The code in the editor is as follows:

```
1 class RentalsApi { Show usages new *
2   constructor(instance) { no usages new *
3     this.API = instance
4   }
5
6   getUserRentals(userId) { no usages new *
7     return this.API.get('/rentals?userId=${userId}')
8   }
9
10  rentHouse(data) { no usages new *
11    return this.API.post('/rentals', data)
12  }
13 }
14
15 export default RentalsApi no usages new *
```

Файл api/index.js:



Файл stores/index.js:

```
1 import instance from "@/api/instance"
2 import RentalsApi from "@/api/rentals"
3
4 const rentalsApi :RentalsApi = new RentalsApi(instance) no usages new *
5
6 export {
7   rentalsApi
8 }
9 |
```



Файл stores/index.js:

```
1 import { persist } from 'pinia-persist'
2 import { createPinia } from 'pinia'
3
4 const pinia :Pinia = createPinia()
5
6 pinia.use(persist())
7
8 export default pinia no usages new *
```

Файл main.js:

```
index.js      main.js ×
1 import { createApp } from 'vue'
2
3 import App from '@/App.vue'
4 import router from '@/router'
5 import store from '@/stores'
6
7 import 'bootstrap/dist/css/bootstrap.min.css'
8 import 'bootstrap'
9 import '@/assets/main.css'
10
11 const app :App<Element> = createApp(App)
12
13 app.use(store)
14 app.use(router)
15
16 app.mount( rootContainer: '#app')
17 |
```

Файл App.vue:

```
index.js      main.js      App.vue ×
1 <template> Show component usages
2   <router-view />
3 </template>
4
```

Файл stores/rentals.js:

```
JS stores\rentals.js ×
1 import { defineStore } from 'pinia'
2 import { rentalsApi } from '@/api'
3
4 export const useRentalsStore : StoreDefinition<"rentals", {...}, {...}> = defineStore( id: 'rentals', options: { Show usages new *
5   state: () :{rentals: []} => ({
6     rentals: []
7   }),
8
9   actions: {
10     async loadRentals(userId) :Promise<void> {
11       const res = await rentalsApi.getUserRentals(userId)
12       this.rentals = res.data
13     },
14     async rentHouse(data) :Promise<void> {
15       await rentalsApi.rentHouse(data)
16       await this.loadRentals(data.userId)
17     }
18   },
19
20   persist: true
21 })
22 |
```

Файл router/index.js:

```
JS stores\rentals.js      JS index.js ×
1 import { createRouter, createWebHistory } from 'vue-router'
2
3 const routes :[{path: string, name: string, ...}] = [
4   {
5     path: '/',
6     name: 'rentals',
7     component: () :Promise<...> => import('@/views/RentalsPage.vue')
8   }
9 ]
10
11
12 export default createRouter( options: { Show usages
13   history: createWebHistory(),
14   routes
15 })
```

Компонента RentalCard.vue:

A screenshot of a code editor showing the `RentalCard.vue` component. The component uses a template to render a card with an image, title, and price. It also includes a script block defining props for title, price, and img.

```
<template> Show component usages
<div class="card">
  
  <div class="card-body">
    <h5>{{ title }}</h5>
    <p>{{ price }} ₽/мес</p>
  </div>
</div>
</template>

<script>
export default {
  props: {
    title: String,
    price: Number,
    img: String
  }
}
</script>
```

Представление RentalsPage:

```
<template>
  <h1>Арендованные объекты</h1>

  <form @submit.prevent="load">
    <input
      type="number"
      v-model="userId"
      placeholder="ID пользователя"
      class="form-control mb-3"
    >
    <button class="btn btn-primary">Загрузить</button>
  </form>
  <form @submit.prevent="createRental" class="mb-4">
    <input
      v-model="form.title"
      placeholder="Название объекта"
      class="form-control mb-2"
    >

    <input
      type="number"
      v-model="form.price"
      placeholder="Цена"
      class="form-control mb-2"
    >
```

```

>

<input
  v-model="form.img"
  placeholder="URL изображения"
  class="form-control mb-2"
>

<button class="btn btn-success">
  Добавить объект
</button>
</form>

<p v-if="rentals.length === 0">
  Объектов нет
</p>

<div class="row">
  <div class="col-md-4" v-for="item in rentals" :key="item.id">
    <RentalCard
      :title="item.title"
      :price="item.price"
      :img="item.img"
    />
  </div>
</div>
</div>
</template>

<script>
import { mapState, mapActions } from 'pinia'
import { useRentalsStore } from '@/stores/rentals'

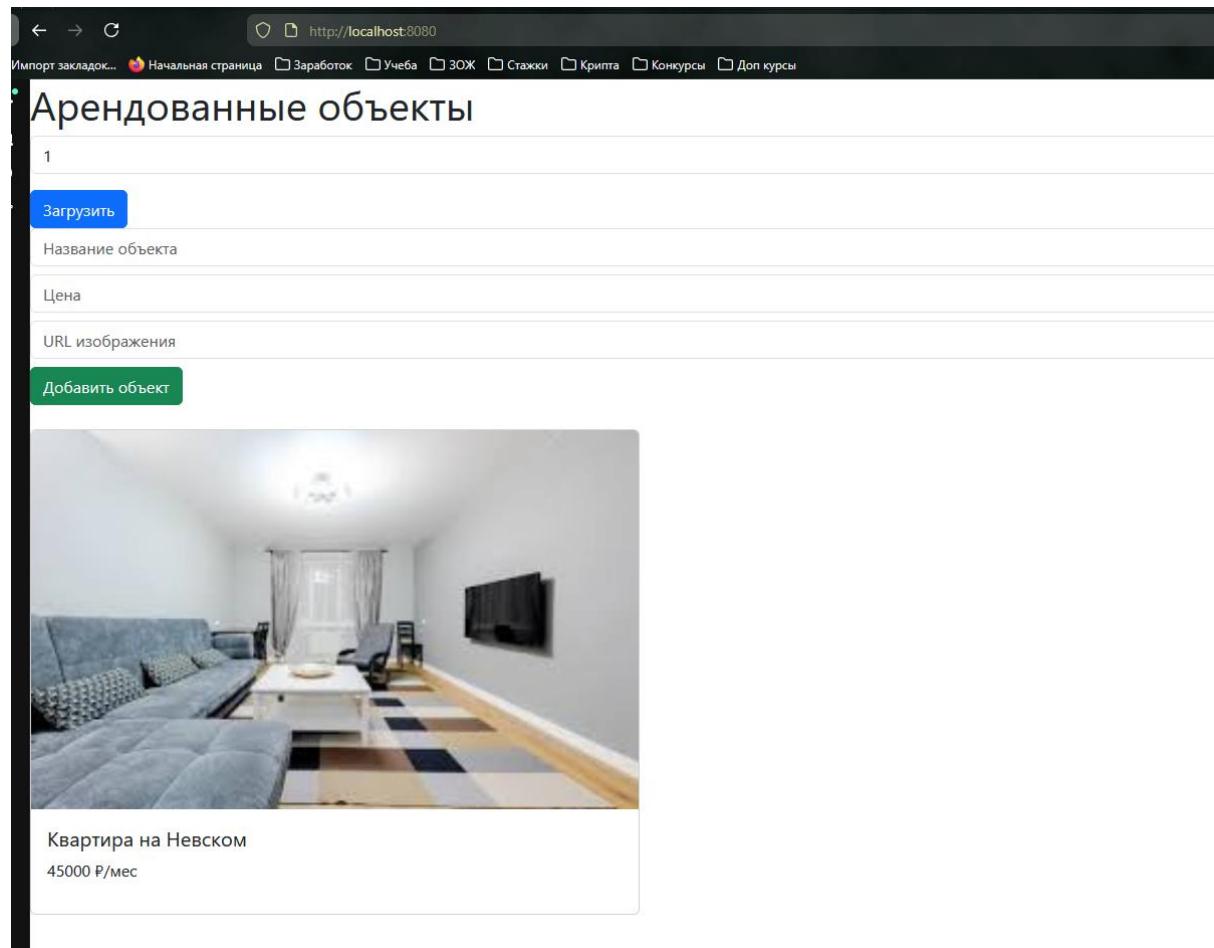
import RentalCard from '@/components/RentalCard.vue'

export default {
  components: { RentalCard },
  data() {
    return {
      userId: localStorage.getItem('userId') || 1,
      form: {
        title: '',
        price: '',
        img: '',
        userId: 1
      }
    }
  },
  computed: {
    ...mapState(useRentalsStore, ['rentals'])
  },
  methods: {
    ...mapActions(useRentalsStore, ['loadRentals', 'rentHouse']),
    load() {
      this.loadRentals(this.userId)
    },
    async createRental() {
      await this.rentHouse(this.form)
    }
  }
}

```

```
        this.form.title = ''
        this.form.price = ''
        this.form.img = ''
    }
},
mounted() {
    this.loadRentals(1)
}
}
</script>
```

Финальная версия:



При попытке загрузить информацию для второго юзера:

← → C

http://localhost:8080

Импорт закладок... Начальная страница Заработка Учеба ЗОЖ Стажки Крипта Конкурсы Доп. курсы

Арендованные объекты

2

Загрузить

Название объекта

Цена

URL изображения

Добавить объект

Объектов нет

Добавление объекта:

← → C

http://localhost:8080

Импорт закладок... Начальная страница Заработка Учеба ЗОЖ Стажки Крипта Конкурсы Доп. курсы

Арендованные объекты

1

Загрузить

Комната в центре|

30000

https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcRsGXl8w2L1EvEstOxXpnFL0Sg0HIZ_G6687g&s

Добавить объект



Квартира на Невском
45000 ₽/мес

Объект добавлен, форма чиста:

← → ⌂ http://localhost:8080

Избранные закладки... 🌐 Начальная страница ⌂ Заработок ⌂ Учеба ⌂ ЗОЖ ⌂ Стажки ⌂ Крипта ⌂ Конкурсы ⌂ Доп. курсы

Арендованные объекты

1

Загрузить

Название объекта

Цена

URL изображения

Добавить объект



Квартира на Невском
45000 ₽/мес



Комната в центре
30000 ₽/мес

Вывод

В результате выполнения работы, были изучены основы работы с прм и vue на основе мануала.