

**САНКТ-ПЕТЕРБУРГСКИЙ НАЦИОНАЛЬНЫЙ
ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО**

Дисциплина: Фронт-энд разработка

Отчет

Домашняя работа №5

Выполнил:

Рыбинская Злата

Группа

K3344

Проверил:

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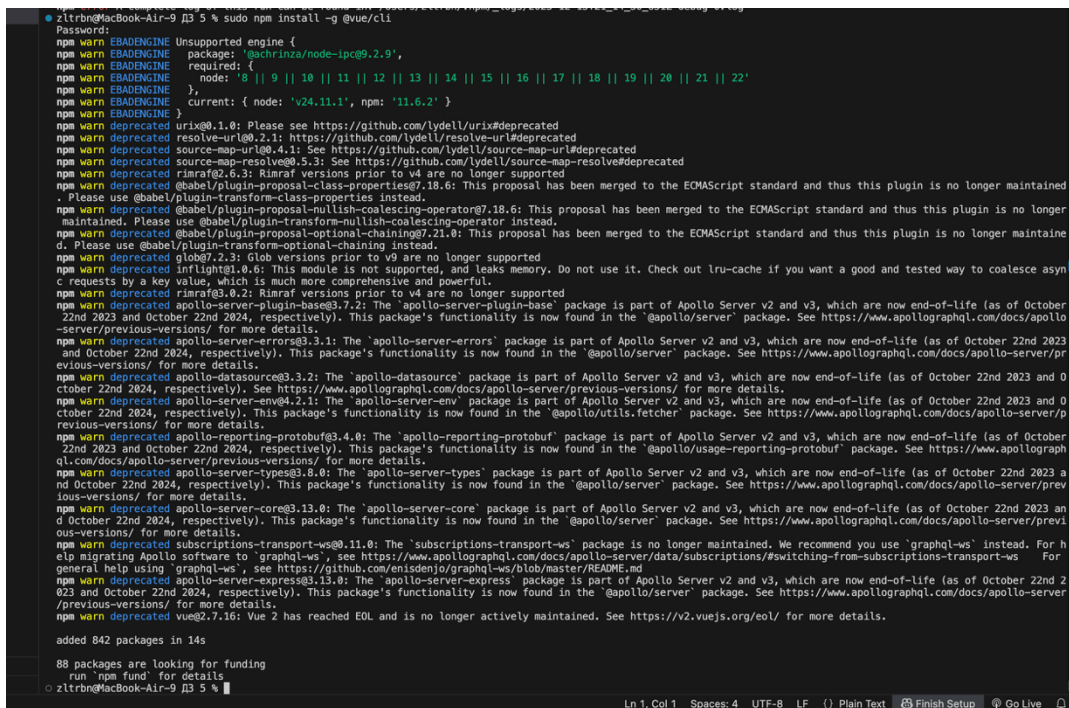
Задача

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

1 Подготовка окружения

Перед началом работы инициализируем проект (рис. 1-5):



```
zltrbn@MacBook-Air-9 ДЗ 5 % sudo npm install -g @vue/cli
Password:
npm warn EBADENGINE Unsupported engine {
  npm warn EBADENGINE   package: '@schrinza/node-lpc@9.2.9',
  npm warn EBADENGINE   required: {
    npm warn EBADENGINE     node: '18 || 19 || 10 || 11 || 12 || 13 || 14 || 15 || 16 || 17 || 18 || 19 || 20 || 21 || 22'
  },
  npm warn EBADENGINE   current: { node: 'v24.11.1', npm: '11.6.2' }
}
npm warn deprecated urix@0.1.0: Please see https://github.com/lydell/urix#deprecated
npm warn deprecated resolve-url@2.1.1: https://github.com/lydell/resolve-url#deprecated
npm warn deprecated source-map-url@0.4.1: See https://github.com/lydell/source-map-url#deprecated
npm warn deprecated source-map-resolve@0.5.3: See https://github.com/lydell/source-map-resolve#deprecated
npm warn deprecated rimraf@2.6.3: Rimraf versions prior to v4 are no longer supported
npm warn deprecated @babel/plugin-proposal-class-properties@7.18.6: This proposal has been merged to the ECMAScript standard and thus this plugin is no longer maintained. Please use @babel/plugin-transform-class-properties instead.
npm warn deprecated @babel/plugin-proposal-nullish-coalescing-operator@7.18.6: This proposal has been merged to the ECMAScript standard and thus this plugin is no longer maintained. Please use @babel/plugin-transform-nullish-coalescing-operator instead.
npm warn deprecated @babel/plugin-proposal-optional-chaining@7.21.0: This proposal has been merged to the ECMAScript standard and thus this plugin is no longer maintained. Please use @babel/plugin-transform-optional-chaining instead.
npm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
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 a good and tested way to coalesce async requests by a key value, which is much more comprehensive and powerful.
npm warn deprecated rimraf@3.0.2: Rimraf versions prior to v4 are no longer supported
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 end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). This package's functionality is now found in the '@apollo/server' package. See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
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 end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). This package's functionality is now found in the '@apollo/server' package. See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
npm warn deprecated apollo-datasource@3.3.2: The 'apollo-datasource' package is part of Apollo Server v2 and v3, which are now end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
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 end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). This package's functionality is now found in the '@apollo/utils.fetcher' package. See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
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 end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). This package's functionality is now found in the '@apollo/usage-reporting-protobuf' package. See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
npm warn deprecated apollo-server-types@3.8.0: The 'apollo-server-types' package is part of Apollo Server v2 and v3, which are now end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). This package's functionality is now found in the '@apollo/server' package. See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
npm warn deprecated apollo-server-core@3.13.0: The 'apollo-server-core' package is part of Apollo Server v2 and v3, which are now end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). This package's functionality is now found in the '@apollo/server' package. See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
npm warn deprecated subscriptions-transport-ws@0.11.0: The 'subscriptions-transport-ws' package is no longer maintained. We recommend you use 'graphql-ws' instead. For help migrating Apollo software to 'graphql-ws', see https://www.apollographql.com/docs/apollo-server/data/subscriptions/#switching-from-subscriptions-transport-ws. For general help using 'graphql-ws', see https://github.com/enisdenjo/graphql-ws/blob/master/README.md
npm warn deprecated apollo-server-express@3.13.0: The 'apollo-server-express' package is part of Apollo Server v2 and v3, which are now end-of-life (as of October 22nd 2023 and October 22nd 2024, respectively). This package's functionality is now found in the '@apollo/server' package. See https://www.apollographql.com/docs/apollo-server/previous-versions/ for more details.
npm warn deprecated vue@2.7.16: Vue 2 has reached EOL and is no longer actively maintained. See https://v2.vuejs.org/eol/ for more details.

added 842 packages in 14s

88 packages are looking for funding
  run `npm fund` for details
zltrbn@MacBook-Air-9 ДЗ 5 %
```

Рисунок 1 – Установка vue и vue-cli

```
zltrbn@MacBook-Air-9 Д3 5 % npm init vue@latest
Vue.js - The Progressive JavaScript Framework
? Project name (target directory): hw5
? Package name: hw5
? Select features to include in your project: (↑/↓ to navigate, space to select, a to toggle all, enter to confirm)
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)
Oxlint
? Skip all example code and start with a blank Vue project?
Yes
Scaffolding project in /Users/zltrbn/Documents/ITMO/Frontend/Д3 5/hw5...
Done. Now run:
  cd hw5
  npm install
  npm run dev

Optional: Initialize Git in your project directory with:
  git init && git add -A && git commit -m "initial commit"
zltrbn@MacBook-Air-9 Д3 5 %
```

Рисунок 2 – Инициализация проекта

```
zltrbn@MacBook-Air-9 Д3 5 % cd hw5
zltrbn@MacBook-Air-9 Д3 5 % npm install
added 241 packages, and audited 242 packages in 17s
60 packages are looking for funding
  run 'npm fund' for details
found 0 vulnerabilities
zltrbn@MacBook-Air-9 Д3 5 %
```

Рисунок 3 – Установка зависимостей

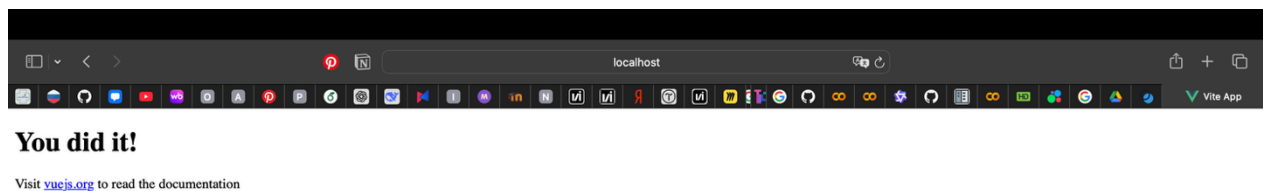


Рисунок 4 – Проверка localhost

```
zltrbn@MacBook-Air-9 HWS % sudo npm i axios pinia-persists bootstrap -S
Password:
added 27 packages, and audited 269 packages in 3s
68 packages are looking for funding
run 'npm fund' for details
found 0 vulnerabilities
zltrbn@MacBook-Air-9 HWS %
```

Рисунок 5 – Запуск проекта

2 Необходимые файлы

Основные файлы приложения – компонента NodeCard.vue, notes.js,

NotesPage.vue:

1) NodeCard.vue:

```
<template>
  <div class="card">
    <div class="card-body">
      <h5 class="card-title">{{ name }}</h5>
      <p class="card-text">
        {{ text }}
      </p>
    </div>
  </div>
</template>

<script>
export default {
  name: 'NoteCard',

  props: {
    name: {
      type: String,
      required: true
    },
    text: {
      type: String,
      required: false
    }
  }
}
</script>
```

2) notes.js:

```

import { defineStore } from 'pinia'
import { notesApi } from '@/api'

const useNotesStore = defineStore('notes', {
  state: () => ({
    notes: []
  }),

  actions: {
    async loadNotes() {
      const response = await notesApi.getAll()

      this.notes = response.data

      return response
    },

    async createNote(data) {
      const response = await notesApi.createNote(data)

      this.notes = response.data

      return response
    }
  }
})

export default useNotesStore

```

3) NotesPage.vue:

```

<template>
  <base-layout>
    <h1>Notes app</h1>

    <form
      ref="noteForm"
      @submit.prevent="createCard"
      class="d-flex flex-column my-5"
    >
      <input
        type="text"
        v-model="form.name"
        class="my-1"
        placeholder="Заголовок заметки"
      >

      <textarea
        cols="30"
        rows="10"
        v-model="form.text"
        class="my-1"
      >
    </form>
  </base-layout>
</template>

```

```

        placeholder="Текст заметки"
      />

      <button type="submit" class="btn btn-primary">
        Отправить
      </button>
    </form>

    <div class="row row-cols-1 row-cols-md-2 g-4 mt-5" id="notes">
      <div
        class="col"
        v-for="note in notes"
        :key="note.id"
      >
        <note-card
          :name="note.name"
          :text="note.text"
        />
      </div>
    </div>
  </base-layout>
</template>

<script>
import { mapActions, mapState } from 'pinia'

import BaseLayout from '@layouts/BaseLayout.vue'
import NoteCard from '@components/NoteCard.vue'
import useNotesStore from '@stores/notes'

export default {
  name: 'NotesPage',

  components: {
    BaseLayout,
    NoteCard
  },

  data() {
    return {
      form: {
        name: '',
        text: '',
        userId: 1
      }
    }
  },

  computed: {
    ...mapState(useNotesStore, ['notes'])
  },

  methods: {

```

```

    ...mapActions(useNotesStore, ['loadNotes', 'createNote']),

    async createCard() {
      await this.createNote(this.form)
      await this.loadNotes()

      this.$refs.noteForm.reset()
    }
  },

  mounted() {
    this.loadNotes()
  }
}
</script>

```

3 Проверка работоспособности

Откроем <http://localhost:8080/> и проверим работу (рис. 6-8):

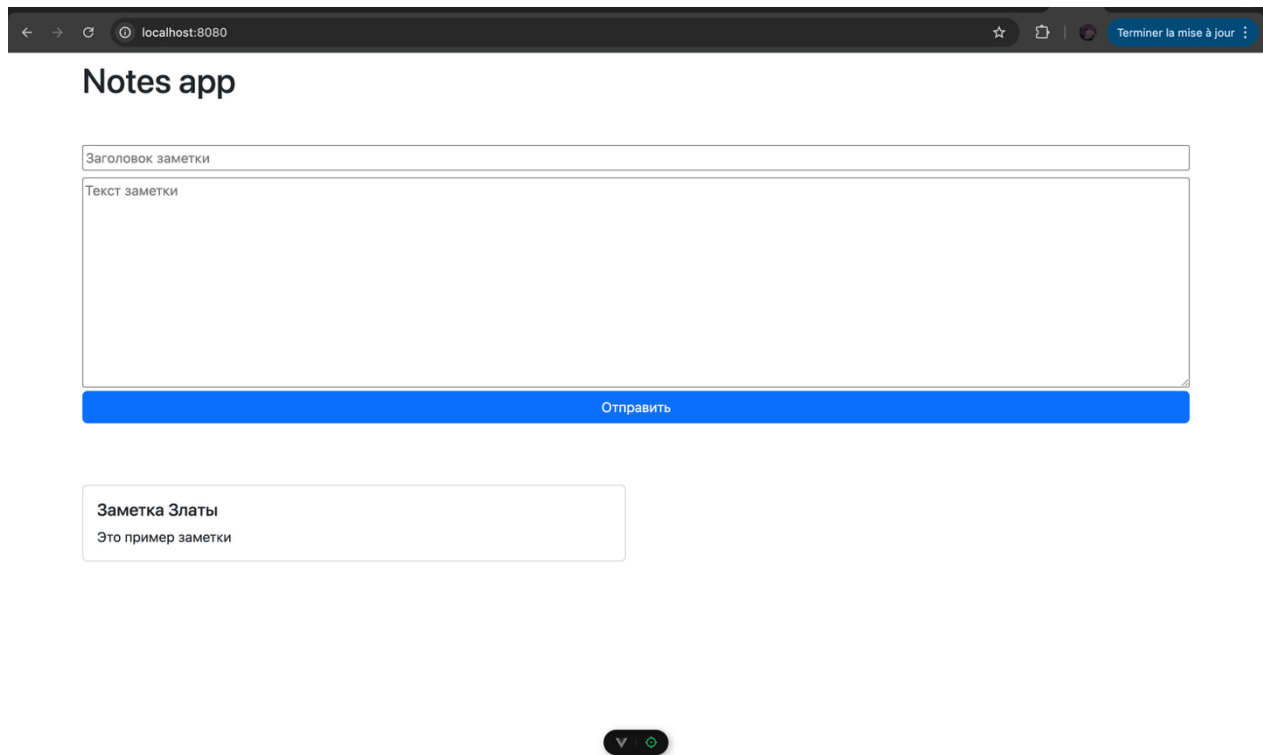


Рисунок 6 – Заметки

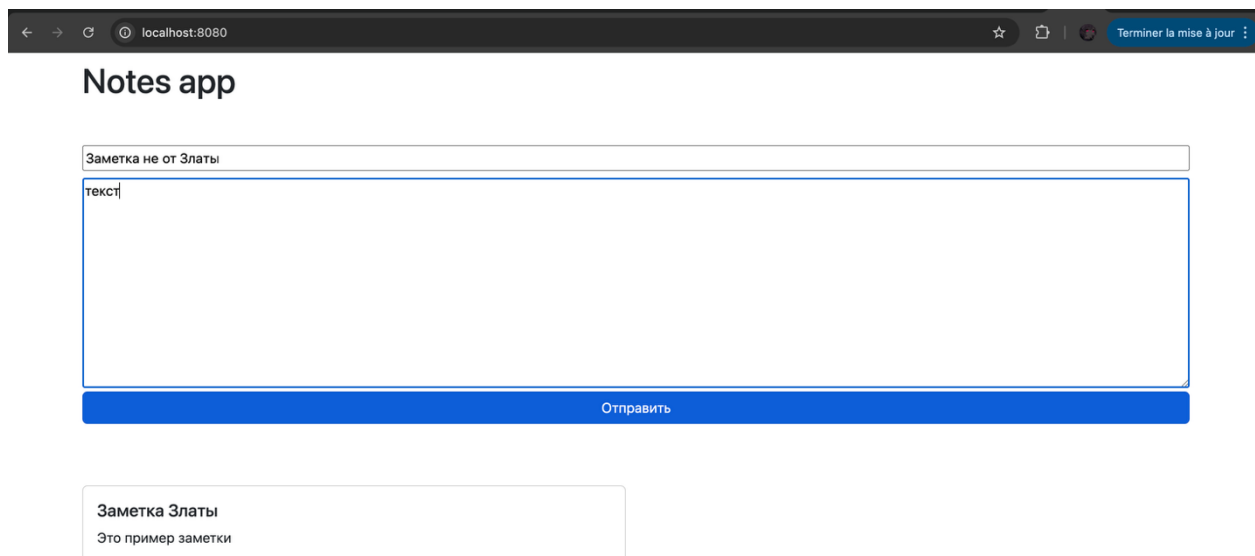


Рисунок 7 – Добавление новой заметки

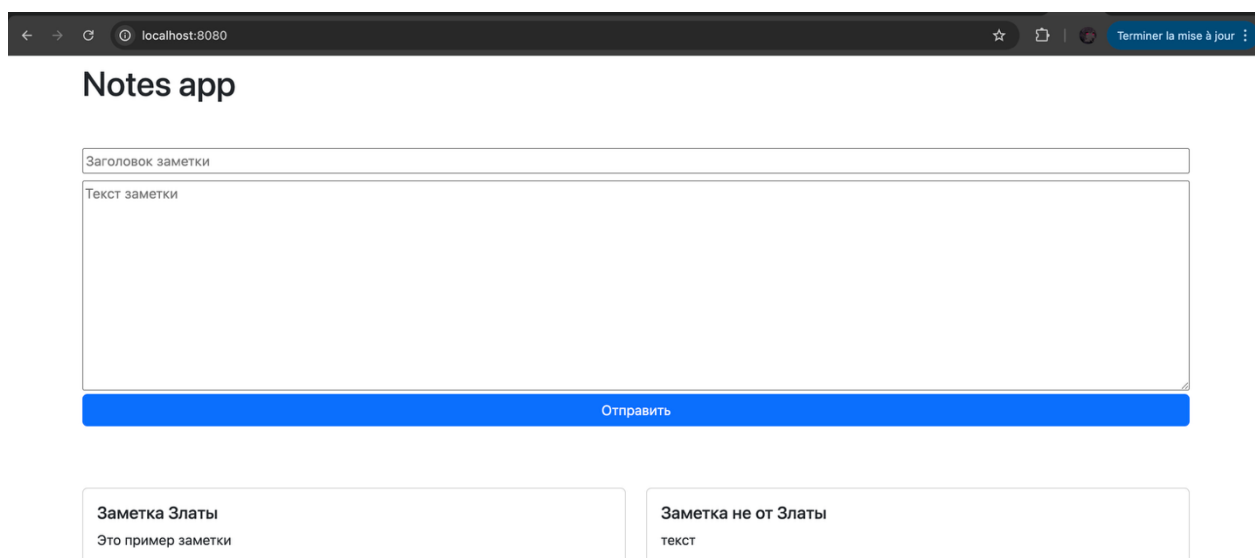


Рисунок 8 – Работа сайта

Приложение «Заметки» полностью работоспособно.

Вывод

В ходе выполнения домашней работы были изучены основы работы с пакетным менеджером NPM и процесс инициализации проекта на фреймворке Vue.js. Был создан и настроен Vue-проект, подключены необходимые зависимости, а также реализована структура приложения с использованием компонентов, роутинга и менеджера состояния Pinia. В процессе работы были закреплены навыки работы с директивами Vue (*v-model*, *v-for*), формами и жизненным циклом компонентов.

В результате было разработано простое веб-приложение «Заметки», позволяющее просматривать и добавлять записи. Приложение корректно взаимодействует с API, отображает данные и обновляет интерфейс без перезагрузки страницы. Все поставленные в задании цели были достигнуты, приложение успешно запускается и является полностью работоспособным.