第7章 网站前台-吐槽与问答

学习目标：

- 完成吐槽列表与详细页
- 完成发吐槽与评论功能，掌握富文本编辑器的使用
- 完成问答频道功能
- 掌握DataURL和阿里云OSS

1 吐槽列表与详细页

1.1 吐槽列表页

1.1.1 吐槽列表页数据渲染

吐槽列表页已经构建，我们现在来实现数据的渲染

（1）easyMock模拟数据

URL: spit/spit/search/{page}/{size}

Method: post

```json
{
    "code": 20000,
    "flag": true,
    "message": "查询成功",
    "data": {
        "total": "@integer(60, 100)",
        "rows|10": [{
            "id": "@string",
            "content": "@cword(100,300)",
            "publishtime": "@datetime",
            "userid": "@string",
            "nickname": "小雅",
            "visits": "@integer(60, 100)",
            "thumbup": "@integer(60, 100)",
            "share": "@integer(60, 100)",
            "comment": "@integer(60, 100)",
            "state": "@string",
            "parentid": "@string"
        }]
    }
}
```

（2）api目录下创建spit.js

```js
import request from '@/utils/request'
const group_name = 'spit'
const api_name = 'spit'
export default {
    search(page, size, searchMap) {
        return request({
            url: `/${group_name}/${api_name}/search/${page}/${size}`,
            method: 'post',
            data: searchMap
        })
    }
}
```

（3）修改pages/spit/index.vue

```html
<template>
    <div>
  <div class="wrapper tag-item">
   <div class="fl left-list">
    <div class="tc-data-list">
     <div class="tc-list">
      <ul class="detail-list">
       <li class="qa-item" v-for="(item,index) in items" :key="index">
        <div class="fl record">
         <div class="number">
          <div class="border useful">
           <p class="usenum"><a href="#" class="zan"><i class="fa fa-
thumbs-up " aria-hidden="true"></i></a></p>
           <p class="zannum"> {{item.thumbup}} </p>
          </div>
          <div class="border answer">
           <a href="#" class="star"><i class="fa fa-star-o" aria-
hidden="true"></i></a>
          </div>
         </div>
        </div>
        <div class="info">
         <p class="text"> <a href="~/assets/spit-detail.html"
target="_blank"> {{item.content}} </a> </p>
         <div class="other">
          <div class="fl date">
           <span>{{item.publishtime}}</span>
          </div>
          <div class="fr remark">
           <a href="#" data-toggle="modal" data-target="#shareModal"
class="share"><i class="fa fa-share-alt" aria-hidden="true"></i> 分享</a>
           <a href="#" data-toggle="modal" data-target="#remarkModal"
class="comment"><i class="fa fa-commenting" aria-hidden="true"></i> 回
复</a>
          </div>
         </div>
        </div>
        <div class="clearfix"></div> </li>
      </ul>

      <div class="modal fade" id="shareModal" tabindex="-1"
```

```html
                role="dialog" aria-labelledby="myModalLabel">
          <div class="modal-dialog" role="document">
           <div class="modal-content">
            <div class="modal-header">
             <button type="button" class="close" data-dismiss="modal" aria-
label="Close"><span aria-hidden="true">&times;</span></button>
             <h4 class="modal-title" id="myModalLabel">分享到</h4>
            </div>
            <div class="modal-body" style="overflow:hidden">
             <div class="jiathis_style_32x32">
              <a class="jiathis_button_qzone"></a>
              <a class="jiathis_button_tsina"></a>
              <a class="jiathis_button_weixin"></a>
              <a class="jiathis_button_cqq"></a>
             </div>
            </div>
           </div>
          </div>
         </div>
         <div class="modal fade" id="remarkModal" tabindex="-1"
role="dialog" aria-labelledby="myModalLabel">
          <div class="modal-dialog" role="document">
           <div class="modal-content">
            <div class="modal-header">
             <button type="button" class="close" data-dismiss="modal" aria-
label="Close"><span aria-hidden="true">&times;</span></button>
             <h4 class="modal-title" id="myModalLabel">发表评论</h4>
            </div>
            <div class="modal-body">
             <div class="comment">
              <span class="who"><img src="~/assets/img/asset-photo.png" />
匿名评论</span>：今天入职腾讯，产品岗，普通非985211大学，上家是不到五十人创业小
公司！16年毕业！找内推腾讯给的面试机会，五轮面试！可能是我把运气攒一起了！
             </div>
             <div class="form">
              <textarea class="form-control" rows="5" placeholder="匿名评
论"></textarea>
              <div class="remark">
               <button class="sui-btn btn-info">发表</button>
              </div>
             </div>
            </div>
```

```
          </div>
        </div>
      </div>
     </div>
    </div>
   </div>
  </div>
  <div class="fl right-tag">
   <div class="block-btn">
    <p>来个匿名吐槽，发泄一下你心中的怒火吧！</p>
    <a class="sui-btn btn-block btn-share" href="~/assets/spit-
submit.html" target="_blank">发吐槽</a>
   </div>
  </div>
  <div class="clearfix"></div>
 </div>
   </div>
</template>
<script>
import '~/assets/css/page-sj-spit-index.css'
import spitApi from '@/api/spit'
export default {
    asyncData(){
        return spitApi.search(1,10, {state:'1'} ).then( res=> {
            return {items:res.data.data.rows}
        })
    }
}
</script>
```

1.1.2 吐槽列表瀑布流

修改页面pages/spit/index.vue

```
  <div class="tc-list" v-infinite-scroll="loadMore" >
```

修改pages/spit/index.vue ,添加pageNo用于记录页码 增加方法

```
data(){
    return {
        pageNo: 1
    }
},
methods:{
    loadMore(){
        this.pageNo++
        spitApi.search( this.pageNo,10,{state:'1'} ).then( res=>{
            this.items=this.items.concat( res.data.data.rows  )
        })
    }
}
```

1.2 吐槽详情页

1.2.1 构建吐槽详情页

（1）根据spit-detail.html创建pages/spit/_id.vue ，内容略

（2）修改pages/spit/index.vue 页面链接

```
<router-link :to="'/spit/'+item.id"> {{item.content}} </router-link>
```

1.2.2 吐槽详情页数据渲染

（1）easyMock模拟数据

URL: spit/spit/{id}

Methos：GET

```
{
  "code": 20000,
  "flag": true,
  "message": "@string",
  "data": {
    "id": "@string",
    "nikename": "小雅",
    "content": "@cword(100,300)",
    "publishtime": "@datetime",
    "thumbup": "@integer(60, 100)",
    "share": "@integer(60, 100)",
    "comment": "@integer(60, 100)"
  }
}
```

URL: spit/spit/commentlist/{id}

Method: GET

```
{
  "code": 20000,
  "flag": true,
  "message": "@string",
  "data|10": [{
    "id": "@string",
    "content": "我要评论我要评论我要评论我要评论我要评论我要评论",
    "nikename": "小雅",
    "publishtime": "@datetime",
    "thumbup": "@integer(60, 100)"
  }]
}
```

（2）修改api/spit.js

```
findById(id){
  return request({
    url: `/${api_group}/${api_name}/${id}`,
    method: 'get'
  })
},
commentlist(id){
  return request({
    url: `/${api_group}/${api_name}/commentlist/${id}`,
    method: 'get'
  })
}
```

（3）修改pages/spit/_id.vue

```html
<template>
    <div class="wrapper tc-detail">
    <div class="fl left-list">
     <div class="tc-detail">
      <!-- 标题区 -->
      <div class="detail-tit">
       <div class="detail-author">
        <a href="javascript:;">{{pojo.nickname}}</a> 发布
       </div>
       <div class="detail-content">
        <p>{{pojo.content}}</p>

       </div>
       <div class="detail-tool">
        <ul>
         <li><span class="star"><i class="fa fa-thumbs-o-up" aria-
hidden="true"></i> {{pojo.thumbup}}</span></li>
         <li><a href="#" data-toggle="modal" data-target="#shareModal"><i
class="fa fa-share-alt" aria-hidden="true"></i> {{pojo.share}}</a></li>
         <li><a data-toggle="modal" data-target="#remarkModal"><i
class="fa fa-commenting" aria-hidden="true"></i> {{pojo.comment}}</a>
</li>
        </ul>
       </div>
      </div>
      <!-- 评论区 -->
      <div class="comment-area">
       <div class="comment-tit">
        <span>评论</span>
       </div>
       <ul class="comment-list">
        <li v-for="(item,index) in commentlist" :key="index">
         <div class="item-photo">
          <img src="~/assets/img/widget-widget-photo.png" alt="" />
         </div>
         <div class="item-content">
          <p class="author"><a href="javascript:;">{{item.nickname}}</a>
发布</p>
          <p class="content">{{item.content}}</p>

         </div>
```

```html
          <div class="item-thumb">
           <div>
            <i class="fa fa-thumbs-o-up" aria-hidden="true"></i>
{{item.thumbup}}
           </div>
          </div> </li>


         </ul>
        </div>
       </div>
      </div>
      <div class="fl right-tag">
       <div class="block-btn">
         <p>来个匿名吐槽，发泄一下你心中的怒火吧！</p>
         <a class="sui-btn btn-block btn-share" href="~/assets/spit-
submit.html" target="_blank">发吐槽</a>
       </div>
      </div>
      <div class="clearfix"></div>
     </div>
</template>
<script>
import '~/assets/css/page-sj-spit-detail.css'
import spitApi from '@/api/spit'
import axios from 'axios'
export default {
    asyncData({params}){
        return axios.all( [
spitApi.findById(params.id),spitApi.commentlist(params.id)  ] ).then(
          axios.spread( function( pojo,commentlist ){
              return {
                  pojo: pojo.data.data,
                  commentlist: commentlist.data.data
              }
          })
        )
    }
}
</script>
```

1.3 吐槽点赞

1.3.1 基本功能

（1）easyMock模拟数据

URL：spit/spit/thumbup/{id}

Method: put

```json
{
    "code": 20000,
    "flag": true,
    "message": "执行成功"
}
```

（2）api/spit.js 增加方法

```js
thumbup(id) {
    return request({
        url: `/${api_group}/${api_name}/thumbup/${id}`,
        method: 'put'
    })
}
```

（3）修改pages/spit/index.vue

```js
methods: {
    thumbup(index){
        spitApi.thumbup(this.items[index].id).then( res=>{
            if(res.data.flag){
                this.items[index].thumbup++
            }
        })
    }
}
```

（4）点赞调用

```
<p class="usenum" @click="thumbup(index)"><a href="#" class="zan"><i
class="fa fa-thumbs-up " aria-hidden="true"></i></a></p>
```

1.3.2 样式处理

实现点赞后，大拇指图标变色。样式表已经写好，在li 的样式上加上color 即可

（1）修改pages/spit/index.vue 的代码部分

```
import '~/assets/css/page-sj-spit-index.css'
import spitApi from '@/api/spit'
export default {
    asyncData(){
        return spitApi.search(1,10, {state:'1'} ).then( res=> {
            let tmp= res.data.data.rows.map( item=>{
                return {
                    ...item,
                    zan: ''
                }
            })
            return {items:tmp}
        })
    },
    data(){
        return {
            pageNo: 1
        }
    },
    methods:{
        loadMore(){
            this.pageNo++
            spitApi.search( this.pageNo,10,{state:'1'} ).then( res=>{
                let tmp= res.data.data.rows.map( item=>{
                    return {
                        ...item,
                        zan: ''
                    }
                })
                this.items=this.items.concat( tmp  )
            })
        },
        thumbup(index){
            this.items[index].zan='color'
            spitApi.thumbup(this.items[index].id).then( res=>{
                if(res.data.flag){
                    this.items[index].thumbup++
                }
            })

        }
```

```
      }
  }
```

（2）修改pages/spit/index.vue的html部分

```html
<a href="#" class="zan">
    <i :class="'fa fa-thumbs-up '+item.zan" aria-hidden="true"></i>
</a>
```

1.3.3 判断是否登陆

要求：点赞必须要在用户登陆的情况下执行，非登陆状态下不能点赞。并且不可重复点赞

导入getUser

```
import {getUser} from '@/utils/auth'
```

修改thumbup（点赞）方法

```
thumbup(index){
    if(getUser().name===undefined){
        this.$message({
            message:'必须登陆才可以点赞哦~',
            type:"warning"
        })
        return
    }
    if( this.items[index].zan==='color'){
        this.$message({
            message:'不可以重复点赞哦~',
            type:"warning"
        })
        return
    }
    this.items[index].zan='color'
    spitApi.thumbup(this.items[index].id).then( res=>{
        if(res.data.flag){
            this.items[index].thumbup++
        }
    })
}
```

1.3.4 提交token

修改utils/request.js ,每次请求将token添加到header里

```
import axios from 'axios'
import {getUser} from '@/utils/auth'
// 创建axios实例
const service = axios.create({
    baseURL: 'http://192.168.184.133:7300/mock/5af314a4c612520d0d7650c7',
// api的base_url
    timeout: 30000, // 请求超时时间
    headers: { 'Authorization': 'Bearer '+getUser().token  }
  })
export default service
```

2 发吐槽与吐槽评论

2.1 发吐槽

2.1.1 构建页面

我们这里用到VUE常用的富文本编辑器vue-quill-editor

详见文档： https://www.npmjs.com/package/vue-quill-editor

（1）安装vue-quill-editor

```
cnpm install vue-quill-editor --save
```

（2）plugins下创建nuxt-quill-plugin.js

```
import Vue from 'vue'
import VueQuillEditor from 'vue-quill-editor/dist/ssr'
Vue.use(VueQuillEditor)
```

（3）修改nuxt.config.js ,配置插件和样式

```
plugins: [
  { src: '~plugins/nuxt-quill-plugin.js', ssr: false }
],
// some nuxt config...
css: [
  'quill/dist/quill.snow.css',
  'quill/dist/quill.bubble.css',
  'quill/dist/quill.core.css'
],
```

（4）pages/spit/submit.vue

```
<template>
  <div class="wrapper release-tc">
   <div class="release-box">
    <h3>发布吐槽</h3>
    <div class="editor">
     <div class="quill-editor"
         :content="content"
         @change="onEditorChange($event)"
         @blur="onEditorBlur($event)"
         @focus="onEditorFocus($event)"
         @ready="onEditorReady($event)"
         v-quill:myQuillEditor="editorOption">
     </div>

     <div class="btns">
      <button class="sui-btn btn-danger btn-release">发布</button>
     </div>
     <div class="clearfix"></div>
    </div>
   </div>
   <div class="clearfix"></div>
  </div>

</template>
<script>
import '~/assets/css/page-sj-spit-submit.css'
  export default {
    data () {
      return {
        content: '',
        editorOption: {
          // some quill options
          modules: {
            toolbar: [
              [{ 'size': ['small', false, 'large'] }],
              ['bold', 'italic'],
              [{ 'list': 'ordered'}, { 'list': 'bullet' }],
              ['link', 'image']
            ]


          }
```

```
          }
        }
      },
      mounted() {
        console.log('app init, my quill insrance object is:',
this.myQuillEditor)
        /*setTimeout(() => {
          this.content = 'i am changed'
        }, 3000)*/
      },
      methods: {
        onEditorBlur(editor) {
          console.log('editor blur!', editor)
        },
        onEditorFocus(editor) {
          console.log('editor focus!', editor)
        },
        onEditorReady(editor) {
          console.log('editor ready!', editor)
        },
        onEditorChange({ editor, html, text }) {
          console.log('editor change!', editor, html, text)
          this.content = html
        }
      }
    }
</script>
<style>
.quill-editor {
    min-height: 200px;
    max-height: 400px;
    overflow-y: auto;
    }

</style>
```

（5）修改pages/spit/index.vue 链接到此页面

```
<router-link class="sui-btn btn-block btn-share" to="/spit/submit">发吐槽
</router-link>
```

2.1.2 提交吐槽

（1）easyMock模拟数据

URL:spit/spit

Method: post

```
{
    "code": 20000,
    "flag": true,
    "message": "执行成功"
}
```

（2）修改api/spit.js，增加提交吐槽的方法

```
    save(pojo) {
        return request({
          url: `/${group_name}/${api_name}`,
          method: 'post',
          data: pojo
        })
    }
```

（2）修改pages/spit/submit.vue 引入API

```
  import spitApi from '@/api/spit'
```

在methods增加方法

```
save(){
    spitApi.save({ content:this.content }  ).then(res=>{
        this.$message({
            message: res.data.message,
            type: (res.data.flag?'success':'error')
        })
        if(res.data.flag){
            this.$router.push('/spit')
        }
    })
}
```

$router.push()的作用是路由跳转。

（3）发布按钮调用方法

```
<button class="sui-btn btn-danger btn-release" @click="save">发布</button>
```

2.2 吐槽评论

2.2.1 评论弹出框

我们这里的评论弹出框使用elementUI的弹出框来实现

（1）修改pages/spit/_id.vue ,添加弹出框, 弹出框中放置富文本编辑器

```html
<el-dialog
    title="评论"
    :visible.sync="dialogVisible"
    width="40%" >
    <div class="quill-editor"
        :content="content"
        @change="onEditorChange($event)"
        v-quill:myQuillEditor="editorOption">
    </div>
    <span slot="footer" class="dialog-footer">
        <el-button @click="dialogVisible = false">取 消</el-button>
        <el-button type="primary" @click="dialogVisible = false">确 定
</el-button>
    </span>
</el-dialog>
```

为富文本编辑框添加样式：

```css
<style>
.quill-editor {
    min-height: 200px;
    max-height: 400px;
    overflow-y: auto;
    }
</style>
```

（2）修改pages/spit/index.vue代码部分

```
data(){
    return {
        dialogVisible: false,
        content: '',
        editorOption: {
        // some quill options
            modules: {
                toolbar: [
                [{ 'size': ['small', false, 'large'] }],
                ['bold', 'italic'],
                [{ 'list': 'ordered'}, { 'list': 'bullet' }],
                ['link', 'image']
                ]
            }
        }
    }
},
methods:{
  onEditorChange({ editor, html, text }) {
    console.log('editor change!', editor, html, text)
    this.content = html
  }
}
```

（3）修改pages/spit/_id.vue 中的回复链接

```
<a @click="dialogVisible=true;content=''"><i  class="fa fa-commenting"
aria-hidden="true"></i> {{pojo.comment}}</a>
```

2.2.2 提交评论

修改pages/spit/_id.vue ，增加提交回复的方法

```
save(){
    spitApi.save({ content:this.content,parentid: this.pojo.id }
).then(res=>{
        this.$message({
            message: res.data.message,
            type: (res.data.flag?'success':'error')
        })
        if(res.data.flag){
          this.dialogVisible=false
          spitApi.commentlist(this.pojo.id).then(res=>{
              this.commentlist=res.data.data
          })
        }
    })
}
```

编辑提交按钮

```
<el-button type="primary" @click="save">提交</el-button>
```

3 问答频道

3.1 嵌套布局与标签导航

3.1.1 嵌套布局

（1）创建pages/qa.vue

```
<template>
    <div>
      <div class="tab-nav ">
        <div class="wrapper">
          <ul class="fl sui-nav nav-tabs navbar-dark">
          <li class="active"><a href="#index" data-toggle="tab">首页</a>
</li>
          <li><a href="#php" data-toggle="tab">Php</a></li>
          <li><a href="#js" data-toggle="tab">Javascript </a></li>
          <li><a href="#python" data-toggle="tab">Python</a></li>
          <li><a href="#java" data-toggle="tab">Java</a></li>
          </ul>
          <span class="fr more"><a href="./qa-allTag.html"
target="_blank">更多</a></span>
          <div class="clearfix"></div>
        </div>
    </div>
    <nuxt-child/>
    </div>
</template>
<script>
import '~/assets/css/page-sj-qa-logined.css'
export default {

}
</script>
```

（2）创建pages/qa/label/_label.vue

```html
<template>
  <div class="wrapper qa-content">
   <div class="fl left-list">
    <div class="tab-content">
     <div id="index" class="tab-pane active">
      <div class="tab-bottom-line">
       <ul class="sui-nav nav-tabs">
        <li class="active"><a href="#new" data-toggle="tab">最新回答</a>
</li>
        <li><a href="#hot" data-toggle="tab">热门回答</a></li>
        <li><a href="#wait" data-toggle="tab">等待回答</a></li>
       </ul>
       <div class="qa-list">
        <div class="tab-content">
         <div id="new" class="tab-pane active">
          <ul class="detail-list">
           <li class="qa-item">
            <div class="fl record">
             <div class="number">
              <div class="border useful">
               <p class="usenum">12</p>
               <p>有用</p>
              </div>
              <div class="border answer">
               <p class="ansnum">9</p>
               <p>回答</p>
              </div>
             </div>
            </div>
            <div class="fl info">
             <div class="question">
              <p class="author"><span class="name">luckness</span>
<span>3</span>分钟前回答</p>
              <p class="title"><a href="./qa-detail.html"
target="_blank">有关PHP初级进阶的问题？</a></p>
             </div>
             <div class="other">
              <ul class="fl sui-tag">
               <li>Php</li>

               <li>Javascript</li>
```

```html
                </ul>
                <div class="fr brower">
                 <p>浏览量 50 | 2017-07-05 15:09 来自 <a href="#">毕鹏 </a>
</p>
                </div>
               </div>
              </div>
              <div class="clearfix"></div> </li>
            <li class="qa-item">
             <div class="fl record">
              <div class="number">
               <div class="border useful">
                <p class="usenum">12</p>
                <p>有用</p>
               </div>
               <div class="border answer">
                <p class="ansnum">9</p>
                <p>回答</p>
               </div>
              </div>
             </div>
             <div class="fl info">
              <div class="question">
               <p class="author"><span class="name">牛奶糖</span>
<span>3</span>分钟前回答</p>
               <p class="title"><a href="./qa-detail.html"
target="_blank">springMVC的controller接收json数据失败</a></p>
              </div>
              <div class="other">
               <ul class="fl sui-tag">
                <li>Php</li>
                <li>Javascript</li>
               </ul>
               <div class="fr brower">
                <p>浏览量 50 | 2017-07-05 15:09 来自 <a href="#">毕鹏 </a>
</p>
               </div>
              </div>
             </div>
             <div class="clearfix"></div> </li>
            <li class="qa-item">
```

```html
            <div class="fl record">
             <div class="number">
              <div class="border useful">
               <p class="usenum">12</p>
               <p>有用</p>
              </div>
              <div class="border answer">
               <p class="ansnum">9</p>
               <p>回答</p>
              </div>
             </div>
            </div>
            <div class="fl info">
             <div class="question">
              <p class="author"><span class="name">大白兔</span>
<span>3</span>分钟前回答</p>
              <p class="title"><a href="./qa-detail.html"
target="_blank">监听器中timer查询数据库</a></p>
             </div>
             <div class="other">
              <ul class="fl sui-tag">
               <li>Php</li>
               <li>Javascript</li>
              </ul>
              <div class="fr brower">
               <p>浏览量 50 | 2017-07-05 15:09 来自 <a href="#">毕鹏 </a>
</p>
              </div>
             </div>
            </div>
            <div class="clearfix"></div> </li>
           <li class="qa-item">
            <div class="fl record">
             <div class="number">
              <div class="border useful">
               <p class="usenum">34</p>
               <p>有用</p>
              </div>
              <div class="border answer">
               <p class="ansnum">9</p>

               <p>回答</p>
```

```html
              </div>
            </div>
          </div>
          <div class="fl info">
            <div class="question">
              <p class="author"><span class="name">luckness</span>
<span>3</span>分钟前回答</p>
              <p class="title"><a href="./qa-detail.html"
target="_blank">服务器上安装了一个考试系统ASP.NET,安装完成后访问不了，求助</a>
</p>
            </div>
            <div class="other">
              <ul class="fl sui-tag">
                <li>Php</li>
                <li>Javascript</li>
              </ul>
              <div class="fr brower">
                <p>浏览量 50 ｜ 2017-07-05 15:09 来自 <a href="#">毕鹏 </a>
</p>
              </div>
            </div>
          </div>
          <div class="clearfix"></div> </li>
        <li class="qa-item">
          <div class="fl record">
            <div class="number">
              <div class="border useful">
                <p class="usenum">12</p>
                <p>有用</p>
              </div>
              <div class="border answer">
                <p class="ansnum">9</p>
                <p>回答</p>
              </div>
            </div>
          </div>
          <div class="fl info">
            <div class="question">
              <p class="author"><span class="name">牛奶糖</span>
<span>3</span>分钟前回答</p>

              <p class="title"><a href="./qa-detail.html"
```

```html
target="_blank">springMVC的controller接收json数据失败</a></p>
        </div>
        <div class="other">
         <ul class="fl sui-tag">
          <li>Php</li>
          <li>Javascript</li>
         </ul>
         <div class="fr brower">
          <p>浏览量 50 | 2017-07-05 15:09 来自 <a href="#">毕鹏 </a></p>
         </div>
        </div>
       <div class="clearfix"></div> </li>
      <li class="qa-item">
       <div class="fl record">
        <div class="number">
         <div class="border useful">
          <p class="usenum">12</p>
          <p>有用</p>
         </div>
         <div class="border answer">
          <p class="ansnum">9</p>
          <p>回答</p>
         </div>
        </div>
       </div>
       <div class="fl info">
        <div class="question">
         <p class="author"><span class="name">大白兔</span>
<span>3</span>分钟前回答</p>
         <p class="title"><a href="./qa-detail.html"
target="_blank">监听器中timer查询数据库</a></p>
        </div>
        <div class="other">
         <ul class="fl sui-tag">
          <li>Php</li>
          <li>Javascript</li>
         </ul>
         <div class="fr brower">
          <p>浏览量 50 | 2017-07-05 15:09 来自 <a href="#">毕鹏 </a>
```

```html
        </p>
                        </div>
                    </div>
                </div>
                <div class="clearfix"></div> </li>
            </ul>
        </div>
        <div id="hot" class="tab-pane">
         <p>热门回答</p>
        </div>
        <div id="wait" class="tab-pane">
         <p>等待回答</p>
        </div>
        </div>
       </div>
      </div>
     </div>
     <div id="php" class="tab-pane">
       php
     </div>
     <div id="js" class="tab-pane">
       Javascript
     </div>
     <div id="python" class="tab-pane">
       python
     </div>
     <div id="java" class="tab-pane">
       java
     </div>
    </div>
   </div>
   <div class="fl right-tag">
    <div class="block-btn">
     <p>今天，有什么好东西要和大家分享么?</p>
     <a class="sui-btn btn-block btn-share" href="./qa-submit.html"
target="_blank">发布问题</a>
    </div>
    <div class="hot-tags">
     <div class="head">
      <h3 class="title">热门标签</h3>
     </div>
```

```html
        <div class="tags">
         <ul class="sui-tag">
          <li>Php</li>
          <li>Javascript</li>
          <li>Gif</li>
          <li>Java</li>
          <li>C#</li>
          <li>iOS</li>
          <li>C++</li>
         </ul>
        </div>
       </div>
      <div class="clearfix"></div>
     </div>
  </template>
```

（3）创建pages/qa/index.vue

```html
<template>
    <div></div>
</template>
<script>
export default {
    created(){
        this.$router.push('/qa/label/0')
    }
}
</script>
```

3.1.2 标签导航

（1）easyMock模拟数据

URL: base/label/toplist

Method: GET

```json
{
  "flag": true,
  "code": 20000,
  "data": [{
      "id": "1",
      "labelname": "JAVA"
    },
    {
      "id": "2",
      "labelname": "PHP"
    },
    {
      "id": "3",
      "labelname": "前端"
    },
    {
      "id": "4",
      "labelname": "Python"
    }
  ]
}
```

（2）编写标签API 创建api/label.js

```js
import request from '@/utils/request'
import {getUser} from '@/utils/auth'
const api_group = 'base'
const api_name = 'label'
export default {
  toplist() {
    return request({
      url: `/${api_group}/${api_name}/toplist`,
      method: 'get'
    })
  }
}
```

（3）修改pages/qa.vue

```
<template>
  <div>
    <div class="tab-nav ">
        <div class="wrapper">
            <ul class="fl sui-nav nav-tabs navbar-dark">
            <router-link tag="li" to="/qa" active-class="active" exact  >
<a> 首页</a></router-link>
            <router-link tag="li" :to="'/qa/label/'+item.id" active-
class="active" v-for="(item,index) in labelList" :key="index"  >

                <a>{{item.labelname}} </a>
            </router-link>
            </ul>
            <span class="fr more"><a href="./qa-allTag.html"
target="_blank">更多</a></span>
            <div class="clearfix"></div>
        </div>
    </div>
    <nuxt-child/>
  </div>
</template>
<script>
import labelApi from '@/api/label'
export default {
    asyncData ({ params, error}) {
        return labelApi.toplist().then((res) => {
            return {labelList: res.data.data  }
        })
    }
}
</script>
```

（4）创建pages/qa/index.vue

```
<template>
  <div>
      这里是问答列表
  </div>
</template>
```

3.2 问答列表

3.2.1 最新问答列表

（1）easy-mock模拟数据

URL:/qa/problem/newlist/{label}/{page}/{size}

Method:GET

```
{
  "code": "@integer(60, 100)",
  "flag": "@boolean",
  "message": "@string",
  "data": {
    "total": "@integer(60, 100)",
    "rows|10": [{
      "id": "@integer(1, 1000)",
      "title": "@cword(20,30)",
      "content": "@string",
      "createtime": "@datetime",
      "updatetime": "@datetime",
      "userid": "@integer(1, 1000)",
      "nickname": "小马",
      "visits": "@integer(60, 100)",
      "thumbup": "@integer(60, 100)",
      "reply": "@integer(60, 100)",
      "solve": "@string",
      "replyname": "小牛",
      "replytime": "@datetime"
    }]
  }
}
```

（2）API编写 创建api/problem.js

```
import request from '@/utils/request'
const group_name = 'qa'
const api_name = 'problem'
export default {
    list(type,label,page,size){
        return request({

url:`/${group_name}/${api_name}/${type}/${label}/${page}/${size}`,
            method: 'get'
        })
    }
}
```

（3）修改pages/qa/label/_label.vue 脚本部分

```
import problemApi from '@/api/problem'
import axios from 'axios'
export default {
  asyncData({params}){
    return axios.all([problemApi.list('newlist',params.label,1,10),
      problemApi.list('hotlist',params.label,1,10),
        problemApi.list('waitlist',params.label,1,10)  ] ).then(
axios.spread(function(newlist,hotlist,waitlist ){
        return {
          newlist:newlist.data.data.rows,
          hotlist:hotlist.data.data.rows,
          waitlist:waitlist.data.data.rows
        }
      }))
  }
}
```

（4）修改pages/qa/label/_label.vue 模板部分

```html
    <ul class="detail-list">
     <li class="qa-item" v-for="(item,index) in newlist"
:key="index">
        <div class="fl record">
         <div class="number">
          <div class="border useful">
           <p class="usenum">{{item.thumbup}}</p>
           <p>有用</p>
          </div>
          <div class="border answer">
           <p class="ansnum">{{item.reply}}</p>
           <p>回答</p>
          </div>
         </div>
        </div>
        <div class="fl info">
         <div class="question">
          <p class="author"><span class="name">{{item.replyname}}
</span><span>{{item.replytime}}</span>回答</p>
          <p class="title"><a href="./qa-detail.html"
target="_blank">{{item.title}}</a></p>
         </div>
         <div class="other">
          <div class="fr brower">
           <p>浏览量 {{item.visits}} | {{item.createtime}} 来自 <a
href="#">{{item.nickname}} </a></p>
          </div>
         </div>
        </div>
        <div class="clearfix"></div> </li>
    </ul>
```

3.2.2 热门回答和等待回答列表

（1）定义属性type ,默认值为new

```
data(){
  return {
    type:'new'
  }
}
```

（2）修改选项卡

```
    <ul class="sui-nav nav-tabs">
    <li :class="type=='new'?'active':''"><a @click="type='new'">最新回
答</a></li>
    <li :class="type=='hot'?'active':''"><a @click="type='hot'">热门回
答</a></li>
    <li :class="type=='wait'?'active':''"><a @click="type='wait'">等待
回答</a></li>
    </ul>
```

（3）修改div的样式为动态获取

最新回答列表

```
    <div id="new" :class="'tab-pane '+(type=='new'?'active':'')">
    .....
    </div>
```

热门回答列表

```
  <div id="hot" :class="'tab-pane '+(type=='hot'?'active':'')">
```

等待回答列表

```
  <div id="wait" :class="'tab-pane '+(type=='wait'?'active':'')">
```

（4）参照最新问答列表编写热门回答列表与等待回答列表内容

```
<li class="qa-item" v-for="(item,index) in hotlist" :key="index">
.....
<li class="qa-item" v-for="(item,index) in waitlist" :key="index">
```

3.2.3 问答列表瀑布流

（1）修改pages/qa/label/_label.vue模板部分

```
<div class="qa-list"  v-infinite-scroll="loadMore">
....
```

（2）修改pages/qa/label/_label.vue脚本部分

```javascript
import problemApi from '@/api/problem'
import axios from 'axios'
export default {
  asyncData({params}){
    return axios.all([problemApi.list('newlist',params.label,1,10),
      problemApi.list('hotlist',params.label,1,10),
        problemApi.list('waitlist',params.label,1,10)  ] ).then(
axios.spread(function(newlist,hotlist,waitlist ){
          return {
            newlist:newlist.data.data.rows,
            hotlist:hotlist.data.data.rows,
            waitlist:waitlist.data.data.rows,
            label:params.label //标签ID，我们需要记录下来
          }
        }))
  },
  data(){
    return {
      type:'new',
      page_new: 1,//记录最新问题列表的页码
      page_hot: 1,//记录热门问题列表的页码
      page_wait: 1//记录等待回答列表的页码
    }
  },
  methods:{
    loadMore(){
      if(this.type==='new'){
        this.page_new++
        problemApi.list('newlist',this.label,this.page_new,10).then(
res=>{
          this.newlist=this.newlist.concat( res.data.data.rows )
        })
      }
      if(this.type==='hot'){
        this.page_hot++
        problemApi.list('hotlist',this.label,this.page_hot,10).then(
res=>{
          this.hotlist=this.hotlist.concat( res.data.data.rows )
        })

      }
```

```
      if(this.type==='wait'){
        this.page_wait++
        problemApi.list('waitlist',this.label,this.page_wait,10).then(
  res=>{
          this.waitlist=this.waitlist.concat( res.data.data.rows )
        })
      }
    }
  }
}
```

3.3 问答详细页

学员实现

3.4 发布问题页

学员实现。使用富文本编辑器（参见吐槽模块的实现）

3.5 标签列表与关注标签

学员实现

4 图片上传

4.1 Data URL

Data URL给了我们一种很巧妙的将图片"嵌入"到HTML中的方法。跟传统的用 `img` 标记将服务器上的图片引用到页面中的方式不一样，在Data URL协议中，图片被转换成base64编码的字符串形式，并存储在URL中，冠以mime-type。

传统方式：

```
<img src="images/myimg.gif ">
```

这种方式中，`img` 标记的 `src` 属性指定了一个远程服务器上的资源。当网页加载到浏览器中 时，浏览器会针对每个外部资源都向服务器发送一次拉取资源请求，占用网络资源。大多数的浏览器都有一个并发请求数不能超过4个的限制。这意味着，如果一个 网页里嵌入了过多的外部资源，这些请求会导致整个页面的加载延迟。而使用Data URL技术，图片数据以base64字符串格式嵌入到了页面中，与HTML成为一体，它的形式如下

```
<img
```

北京市昌平区建材城西路金燕龙办公楼一层

电话：400-618-9090

```
<img
```

src="data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAAM8AAAA4CAYAAABaFqz+AA
AAGXRFWHRTb2Z0d2FyZQBBZG9iZSBJbWFnZVJlYWR5ccllPAAAAyJpVFh0WE1MOmNvbS5hZG9
iZS54bXAAAAAAADw/eHBhY2tldCBiZWdpbj0i77u/IiBpZD0iVzVNME1wQ2VoaHpyZVNzTk1U
Y3prYzlkIj8+IDx4OnhtcG1ldGEgeG1sbnM6eD0iYWRvYmU6bnM6bWV0YS8iIHg6eG1wdGs9I
kFkb2JlIFhNUCBDb3JlIDUuMy1jMDExIDY2LjE0NTY2MSwgMjAxMi8wMi8wNi0xNDo1NjoyNy
AgICAgICAgIj4gPHJkZjpSREYgeG1sbnM6cmRmPSJodHRwOi8vd3d3LnczLm9yZy8xOTk5LzA
yLzIyLXJkZi1zeW50YXgtbnMjIj4gPHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9IiIgeG1s
bnM6eG1wPSJodHRwOi8vbnMuYWRvYmUuY29tL3hhcC8xLjAvIiB4bWxuczp4bXBNTT0iaHR0c
DovL25zLmFkb2JlLmNvbS94YXAvMS4wL21tLyIgeG1sbnM6c3RSZWY9Imh0dHA6Ly9ucy5hZG
9iZS5jb20veGFwLzEuMC9zVHlwZS9SZXNvdXJjZVJlZiMiIHhtcDpDcmVhdG9yVG9vbD0iQWR
vYmUgUGhvdG9zaG9wIENTNiAoV2luZG93cykiIHhtcE1NOkluc3RhbmNlSUQ9InhtcC5paWQ6
OUQyRTkxNThFREEyMTFFNjhENUY5QjM0OUZGQzEwNDiIIHhtcE1NOkRvY3VtZW50SUQ9Inhtc
C5kaWQ6OUQyRTkxNTlFRDEyMTFFNjhENUY5QjM0OUZGQzEwNDiiPiA8eG1wTU06RGVyaXZlZZE
Zyb20gc3RSZWY6aW5zdGFuY2VJRD0ieG1wLmlpZDo5RDJFOTE1NkVEMTIxMUU2OEQ1RjlCMzQ
5RkZDMTA3QiIgc3RSZWY6ZG9jdW1lbnRJRD0ieG1wLmRpZDo5RDJFOTE1N0VEMTIxMUU2OEQ1
RjlCMzQ5RkZDMTA3QiIvPiA8L3JkZjpEZXNjcmlwdGlvbj4gPC9yZGY6UkRGPiA8L3g6eG1wb
WV0YT4gPD94cGFja2V0IGVuZD0iciI/Po4slv0AABviSURBVHja7F0JfBRF1u/puXJxCqIiiiI
D4LawIIq6KgooICh7ITRIIN6ui6KcsiiugCPrJp6KuohwJhFtQDhUPRFg5FJRDkfUAOUQFTAh
KyDFX7/tnXieVSs9Mz6TD4W8ev6Knq6urqqvX++oVxbUkWUNmRoPbvD/ojd7minBQJHfT5v
evbMmX8ocYrTn4QcVmaWOnhwEoHlCZfLNVC1qc5iT/EiT3Fx53mz4qCJ05+PbFZk0n/Q4EtcL
uf0xISkG7x+b15xUfHY7JkzZsabN05+PbRobqsDveSEpOHmRTVbWooZiiiiD4LawIIq6Kgoo
ICh7ITRIIN6ui6KcsiiugCPrJp6KuohwJhFtQDhUPRFg5FJRDkfUAOUQFTAhKyDFX7/tnXieVS
s9Mz6TD4W8ev6Knq6urqqvX++oVxbUkWUNmRoPbvD/ojd7minBQJHfT5vevbMmX8ocYrTn4Qc
VmaWOnhwEoHlCZfLNVC1qc5iT/EiT3Fx53mz4qCJ05+PbFZk0n/Q4EtcLuf0xISkG7x+b15xU
fHY7JkzZsabN05+PbRobqsDveSEpOHmRTVbWooZiiiiD4LawIIq6KgooICh7ITRIIN6ui6Kcs
iiugCPrJp6KuohwJhFtQDhUPRFg5FJRDkfUAOUQFTAhKyDFX7/tnXieVSs9Mz6TD4W8ev6Knq6
urqqvX++oVxbUkWUNmRoPbvD/ojd7minBQJHfT5vevbMmX8ocYrTn4QcVmaWOnhwEoHlCZfLN
VC1qc5iT/EiT3Fx53mz4qCJ05+PbFZk0n/Q4EtcLuf0xISkG7x+b15xUfHY7JkzZsabN05x8I
QGTX3iMkuSEhOv9fn9xYWhRMJNFPCvXNr97ucdLmCQmsKzSk0pFCPQqKQ7CiFwxR+ofA1hc9X
mCQmsKzSk0pFCPQqKQ7CiFwxR+ofA1hc9XmCQmsKzSk0pFCPQqKQ7CiFwxR+ofA1hc9X

uDBDPSfoqbSr9bsg7XycRs/gfP4NESxN92wv1PYdJCFzWyUsLVaTXakMJv0rPxzJFkGsvc/Ew
kjAuz4l9TSXIyQwD4ndTHc1k/zy8HHofTudBG4hqsazb65/X5hkrcABa1SSFEJgz4kxbPAjAc
rOMQTva9kjnP+SGSQM7H+tD/x2hUQd4t+H4VlXerQR2G0eV/+fYbCi+Z+L5jdBlN797MooFOi
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```

vue-quill-editor的图片上传默认采用Data URL方式。

4.2 辅助插件vue-quill-editor-upload

如果你不想使用Data URL方式存储图片，我们可以通过一个辅助插件vue-quill-editor-upload 来让vue-quill-editor实现传统方式的上传。

（1）安装：

```
cnpm install vue-quill-editor-upload --save
```

（2）修改submit.vue 引入插件

```
import {quillRedefine} from 'vue-quill-editor-upload'
```

（3）将editorOption的值改为{}

```
data () {
  return {
    content: '',
    editorOption:{}//修改此处！
  }
}
```

（4）新增created 钩子函数

```
created () {
  this.editorOption = quillRedefine(
    {
      // 图片上传的设置
      uploadConfig: {
        action: 'http://localhost:3000/upload',  // 必填参数 图片上传地
址

        // 必选参数   res是一个函数，函数接收的response为上传成功时服务器返
回的数据

        // 你必须把返回的数据中所包含的图片地址 return 回去
        res: (respnse) => {
          return respnse.info
        },
        name: 'img'  // 图片上传参数名
      }
    }
  )
}
```

4.3 Multer（了解）

课程中提供了上传图片的服务端代码 upload-server ，我们可以先测试运行后，对照在
线文档阅读并理解代码（课程不要求学员独立编写此段代码）

```
cnpm install
npm run start
```

这段代码主要应用两项技术：

（1）Express --node.js的web框架 在线文档：

http://www.expressjs.com.cn/4x/api.html

（2）Multer --Express官方推出的，用于multipart/form-data请求数据处理的中间件
在线文档： https://github.com/expressjs/multer/blob/master/doc/README-zh-cn.md

4.4 云存储解决方案-阿里云OSS

为了能够解决海量数据存储与弹性扩容，我们在十次方项目中采用云存储的解决方案- 阿里云OSS。

4.4.1 准备工作

（1）申请阿里云账号并完成实名认证： 可以使用我们之前发短信用的阿里云账号。

（2）开通OSS: 登录阿里云官网。将鼠标移至产品找到并单击对象存储OSS打开OSS产品详情页面。在OSS产品详情页中的单击立即开通。开通服务后，在OSS产品详情页面单击管理控制台直接进入OSS管理控制台界面。您也可以单击位于官网首页右上方菜单栏的控制台，进入阿里云管理控制台首页，然后单击左侧的对象存储OSS菜单进入OSS管理控制台界面。

（3）创建存储空间

新建Bucket，命名为tensquare ，读写权限为公共读

4.4.2 代码编写

（1）安装ali-oss

```
cnpm install ali-oss --save
cnpm install co --save
```

（2）修改file-upload-demo-master的server.js

```javascript
var co = require('co');
var OSS = require('ali-oss');
var client = new OSS({
  accessKeyId: 'LTAIWaEERTRWSD2',
  accessKeySecret: 'PznrHXxYvTcADAFFDDDJnoAokJ0NSWEWF',
  endpoint: 'oss-cn-beijing.aliyuncs.com',
  bucket: 'tensquare'
});
```

```javascript
app.post('/upload', upload.single('img'), (req, res) => {

  // 没有附带文件
  if (!req.file) {
    res.json({ ok: false });
    return;
  }

  co(function* () {
    var stream = fs.createReadStream(req.file.path);
    var result = yield client.putStream(req.file.originalname, stream);
    console.log("result:"+result);

    res.json({ ok: true , info: result.url})
  }).catch(function (err) {
    console.log(err);
  });

});
```

co ：已同步的方式调用异步的代码 配合yield关键字使用，将异步结果直接返回。