

2021年春季学期 北京大学公共选修课  
计算机科学与编程入门

## 第4讲 可视化设计 (2)

主讲教师：陆俊林 纪晓璐  
2021年3月29日



# 主要内容



**01. 地理坐标系**



**02. 地图**



**03. 组合图表**



**04. Github发布个人网站**





# 03 | 组合图表



# 组合图表



01. Timeline 时间轴组件 时间线轮播多图



02. Grid 组合组件 并行多图



03. Page 页面组件 顺序多图 (扩展)



04. Tab 分页组件 选项卡多图 (扩展)





# 04 | 用Github 发布个人网站



# Where the world builds software

Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world.

Email

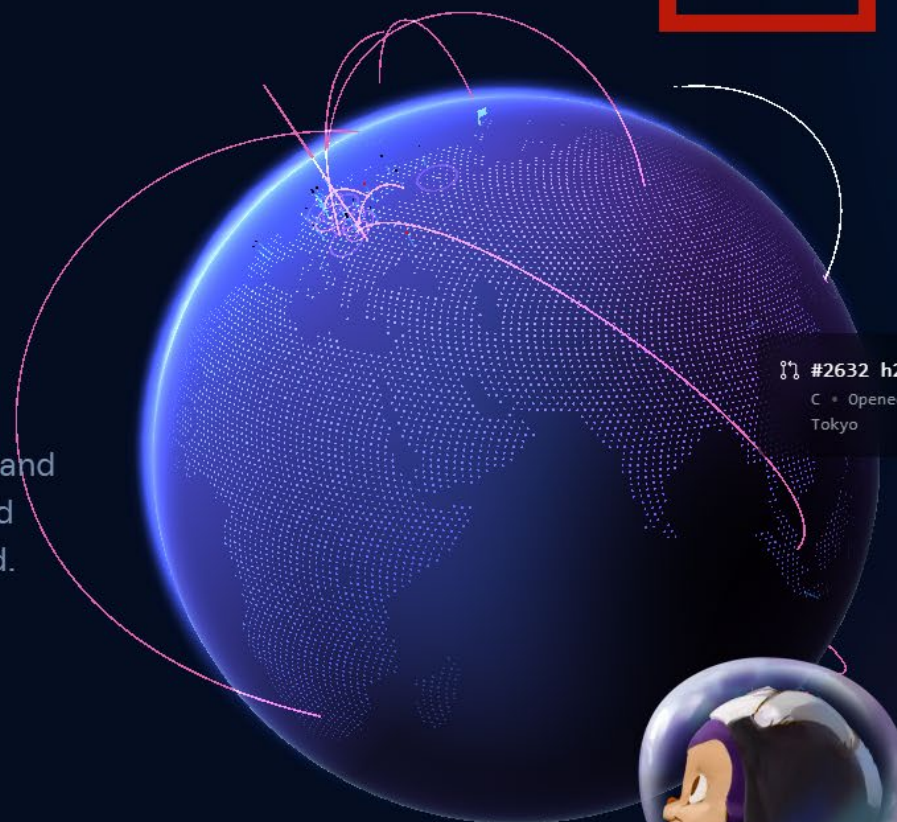
Sign up for GitHub

56+ million  
Developers

3+ million  
Organizations

100+ million  
Repositories

72%  
Fortune 50



#2632 h2o/h2o

C - Opened in San Francisco, merged 2 hours ago in Tokyo





New

## Learn Git and GitHub without any code!

Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.

[Read the guide](#)[Start a project](#)

Set up an  
your team  
more

### Introduce yourself

The easiest way to introduce yourself on GitHub is by creating a README in a repository about you! You can start here:

yourusername/ README.md

- 1 - 👋 Hi, I'm yourusername
- 2 - 🐼 I'm interested in ...
- 3 - 🦉 I'm currently learning ...
- 4 - 🍷 I'm looking to collaborate on ...
- 5 - 📫 How to reach me ...
- 6

[Dismiss this](#)[Continue](#)

## Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you [watch](#) and people you [follow](#).

[Explore GitHub](#)[New repository](#)[Import repository](#)[New gist](#)[New organization](#)[New project](#)

## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner \*

yourusername

Repository name \*

yourusername.github.io

Great repository names are short and memorable. Need inspiration? How about [stunning-succotash?](#)

Description (optional)

☒ Public

Anyone on the internet can see this repository. You choose who can commit.

☐ Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ Add a README file

This is where you can write a long description for your project. [Learn more.](#)

☐ Add .gitignore

Choose which files not to track from a list of templates. [Learn more.](#)

☐ Choose a license

A license tells others what they can and can't do with your code. [Learn more.](#)

Create repository





### Quick setup — if you've done this kind of thing before

 Set up in Desktop

or

HTTPS

SSH

`https://github.com/yourusername/yourusername.github.io.git`



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

### ...or create a new repository on the command line

```
echo "# yourusername.github.io" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/yourusername/yourusername.github.io.git
git push -u origin main
```



### ...or push an existing repository from the command line

```
git remote add origin https://github.com/yourusername/yourusername.github.io.git
git branch -M main
git push -u origin main
```



[Code](#)[Issues](#)[Pull requests](#)[Actions](#)[Projects](#)[Wiki](#)[Security](#)[Insights](#)[Settings](#)[main](#)[1 branch](#)[0 tags](#)[Go to file](#)[Add file](#)[Code](#)

README.md

Update README.md

Create new file

Upload files

[6 commits](#)

1 minute ago

README.md



# username.github.io



Drag files here to add them to your repository



Or [choose your files](#)



## Commit changes

Add files via upload

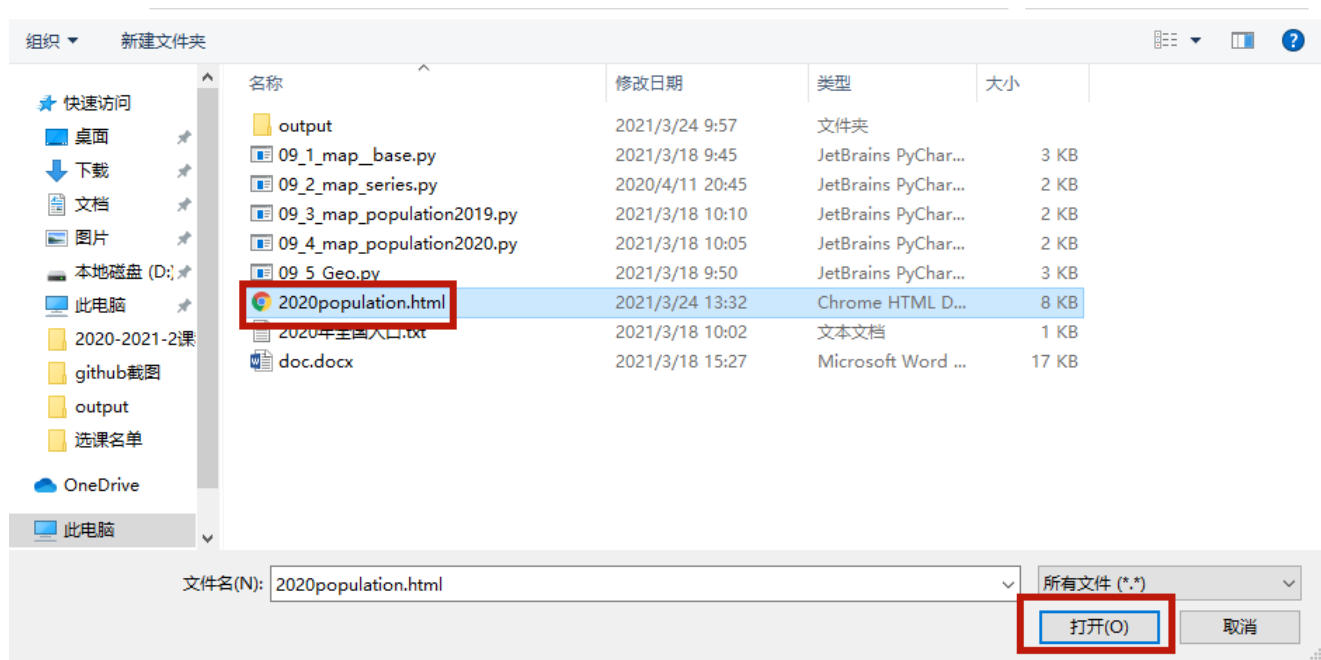
Add an optional extended description...

- ☒  Commit directly to the `main` branch.
- ☐  Create a **new branch** for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes

Cancel





## Commit changes

Add files via upload

Add an optional extended description...

☒ Commit directly to the `main` branch.

☐ Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)


Commit changes

Cancel



Drag additional files here to add them to your repository

Or [choose your files](#)

 2020population.html



### Commit changes

Add files via upload

Add an optional extended description...

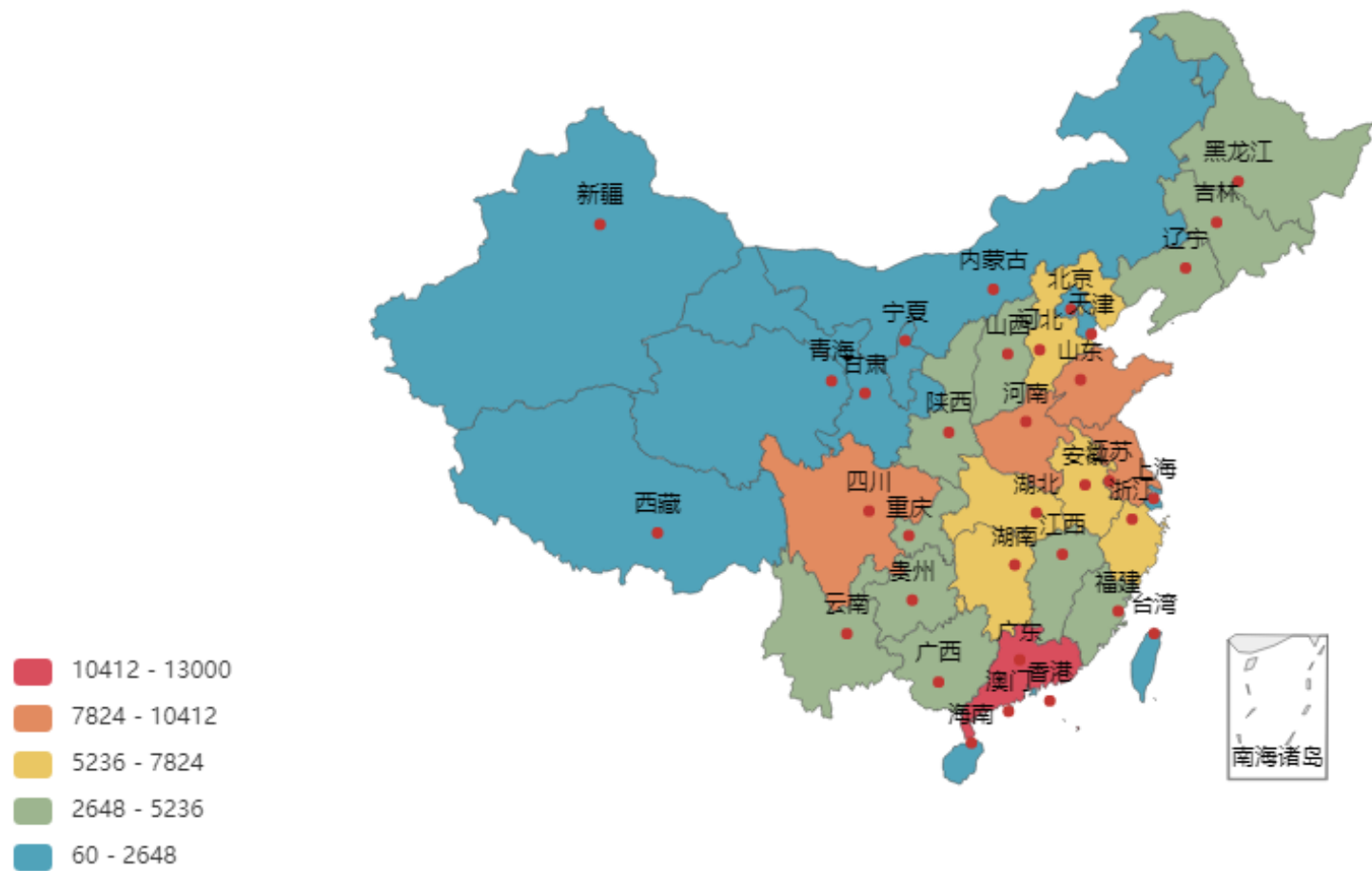
- ☒ Commit directly to the `main` branch.
- ☐ Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes

Cancel

### 2020年全国人口数据分级设色图

2020年人口 (单位: 万)



南海诸岛



[Code](#)[Issues](#)[Pull requests](#)[Actions](#)[Projects](#)[Wiki](#)[Security](#)[Insights](#)[Settings](#)[main](#)[1 branch](#)[0 tags](#)[Go to file](#)[Add file](#)[Code](#)[Add files via upload](#)[31f0efb](#) 3 minutes ago [2 commits](#)[README.md](#)[Create README.md](#)

15 minutes ago

[index.html](#)[Add files via upload](#)

3 minutes ago

README.md



yourusername.github.io

 [yourusername](#) / [yourusername.github.io](#)

 Unwatch ▾

1


 Star


0

 Fork

0


 Code

 Issues


 Pull requests

 Actions

 Projects

 Wiki


 Security

 Insights

 Settings

[yourusername.github.io](#) /  in [main](#)

Cancel Changes

 Edit new file

 Preview

Spaces ▾

2 ▾

No wrap ▾



```
1 # yourusername.github.io
```



## Commit changes

Update README.md

Add an optional extended description...

- ☒  Commit directly to the `main` branch.
- ☐  Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes

Cancel



# 计算机科学与编程入门课程第二次作业

---

学号 姓名

---

## 1. 作业1

---

作业1描述

[作业1链接](#)

## 2. 作业2

---

作业2描述

[作业1链接](#)

# Markdown

- 纯文本格式的标记语言
  - 通过简单的标记语法，可以使普通文本内容具有一定的格式
- 操作简单

# 一、标题

- 在要设置为标题的文字前面加#来表示
  - 一个#是一级标题，二个#是二级标题，以此类推
- 支持六级标题
- 注：标准语法是在#后跟个空格再写文字



## 二、段落

- 段落换行

- 使用两个以上空格加上回车
- 也可以在段落后面使用一个空行来表示重新开始一个段落

# 三、列表

- 无序列表

- 用 - + \* 任何一种都可以
- 注： - + \* 跟内容之间要有一个空格

- 有序列表

- 数字加点

- 列表嵌套

- 在子列表中的选项前面添加四个空格

## 四、超链接

- **[超链接名](超链接地址 “超链接title”)**
  - title可不加
- 注： Markdown本身语法不支持链接在新页面中打开
- **高级链接**
  - 可以通过变量来设置一个链接， 变量赋值在文档末尾进行：

```
1   [百度][1]  
2  
3   [1] : www.baidu.com  
4
```

# 作业

- 1. **词频统计图**
  - 基于上次作业
  - 不能仅限于柱状图和词云，还需以课上未讲到的其他图表形式来展现
- 2. **地理连线图**（自己设定故事背景）
- 3. **中国地图、世界地图**（自己设定故事背景）
- 4. **组合图表**（自己设定故事背景）
- 5. **用GitHub发布个人网站**
  - 网站首页包含个人学号信息以及上述四个作业的文字说明和链接
  - 每个作业包含一个或多个链接
  - 注：一定要有文字说明



```
1  # 计算机科学与编程入门课程第二次作业
2  ## 学号 姓名
3  ## 1. 作业1
4  作业1描述
5
6  [作业1链接](https://yourusername.github.io/2020population.html)
7  ## 2. 作业2
8  作业2描述
9
10 [作业2链接](https:// )
11
```

# 计算机科学与编程入门课程第二次作业

---

学号 姓名

---

## 1. 作业1

---

作业1描述

[作业1链接](#)

## 2. 作业2

---

作业2描述

[作业1链接](#)

# 本讲到此结束，谢谢！

— 计算机科学与编程入门 —

