(第12组)

**(Project-Spider)**

Software Design Document

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Date: (04/24/2017)

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# INTRODUCTION

## Purpose

为明确软件开发过程、安排具体的代码内容、方便并指导开发者开发项目而撰写本文档。

预期读者为参与本项目的开发人员。

## Scope

本文档，能够方便开发者进行软件开发，提高开发速度，并且本文档将作为该项目开发者的指导工具。

## Overview

本文档主要由简介、系统架构、数据设计、部件设计、接口设计等5个方面组成。简介主要介绍该文档的功能，系统构架主要介绍项目软件的体系结构，数据设计包括了软件内部的主要数据变量，部件设计包括软件的构成部分，接口设计主要包括了用户和系统交互的部分。

## Reference Material

*https://github.com/*

## Definitions and Acronyms

*无*

# SYSTEM OVERVIEW

本项目能够使广大喜爱漫画的人员能够更简单的寻找到当前热点漫画和高点击量漫画， 而且本爬虫项目还能够完善相关网站的搜索功能，让使用者能够更加方便的获取自己喜爱类型的相关漫画。因此，我们的设计包含了三个方面，从设计爬虫，从Pixiv网站上获取相关信息，然后将这些信息经过整理后，保存到后台数据库，按照图片和作者方式存储，再设计相关前端web，用web发送这些图片，并为使用者提供推送，查询，下载功能。

# SYSTEM ARCHITECTURE

## Architectural Design

该项目主要由三个模块组成：前端web，爬虫、数据库。首先爬虫负责获取数据，并传递数据到数据库；其次，数据库整理有用数据，并将部分数据推送到web上。当web有访问相关数据需求的时候，提供相关数据。Web主要是为用户提供访问接口，让用户能够完成下载，查询，查看当前热搜等功能，下载功能即用户选择了要下载的图片后，系统向数据库提出申请，让数据库查询并返回相关地址，用户利用地址进行下载；查询功能：用户输入想要查询的内容，系统连接数据库进行查询，再从数据库返回查询结果。

## Decomposition Description

Provide a decomposition of the subsystems in the architectural design. Supplement with text as needed. You may choose to give a functional description or an object­oriented description. For a functional description, put top­level data flow diagram (DFD) and structural decomposition diagrams. For an OO description, put subsystem model, object diagrams, generalization hierarchy diagram(s) (if any), aggregation hierarchy diagram(s) (if any), interface specifications, and sequence diagrams here.

## Design Rationale

Discuss the rationale for selecting the architecture described in 3.1 including critical issues and trade/offs that were considered. You may discuss other architectures that were considered, provided that you explain why you didn’t choose them.

# DATA DESIGN

## Data Description

Explain how the information domain of your system is transformed into data structures. Describe how the major data or system entities are stored, processed and organized. List any databases or data storage items.

## Data Dictionary

Alphabetically list the system entities or major data along with their types and descriptions. If you provided a functional description in Section 3.2, list all the functions and function parameters. If you provided an OO description, list the objects and its attributes, methods and method parameters.

# COMPONENT DESIGN

In this section, we take a closer look at what each component does in a more systematic way. If you gave a functional description in section 3.2, provide a summary of your algorithm for each function listed in 3.2 in procedural description language (PDL) or pseudocode. If you gave an OO description, summarize each object member function for all the objects listed in 3.2 in PDL or pseudocode. Describe any local data when necessary.

# HUMAN INTERFACE DESIGN

## Overview of User Interface

1.用户可通过web网址访问该项目网站的主页面。

2.主页面有下载按钮，让用户进入下载界面，为用户提供下载功能。

3.下载界面中，为用户提供输入框，让用户输入想要下载的内容。

4.主页面中有搜索框，为用户提供输入想要查询的内容。

5.主页面中有下一个按钮，让用户转接到推送界面。

6.推送界面有上一页按钮，让用户转到主界面。

7.在推送界面，有当前火热的漫画图片或者当前访问量很高的漫画制作家。

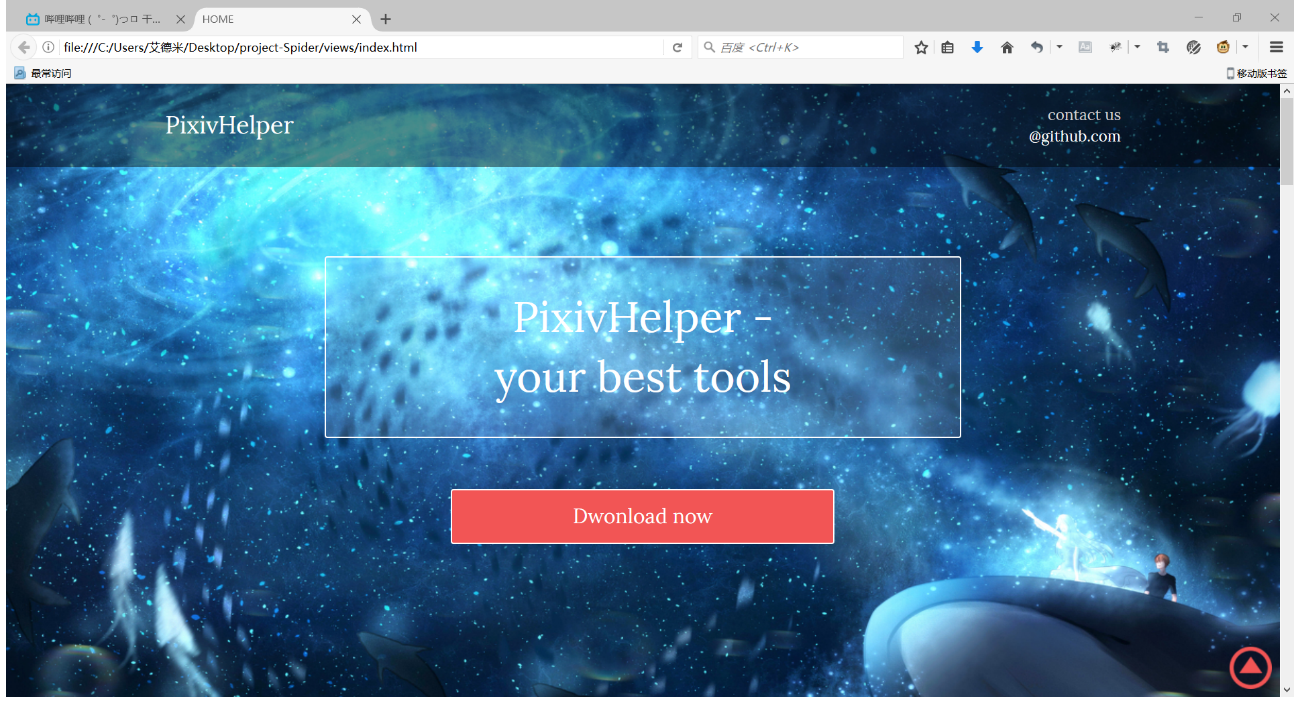
8.在推送页面提供放大镜功能，让用户右击图片可以放大图片。

9.推送界面有下一页按钮，让用户转到查看制作者界面。

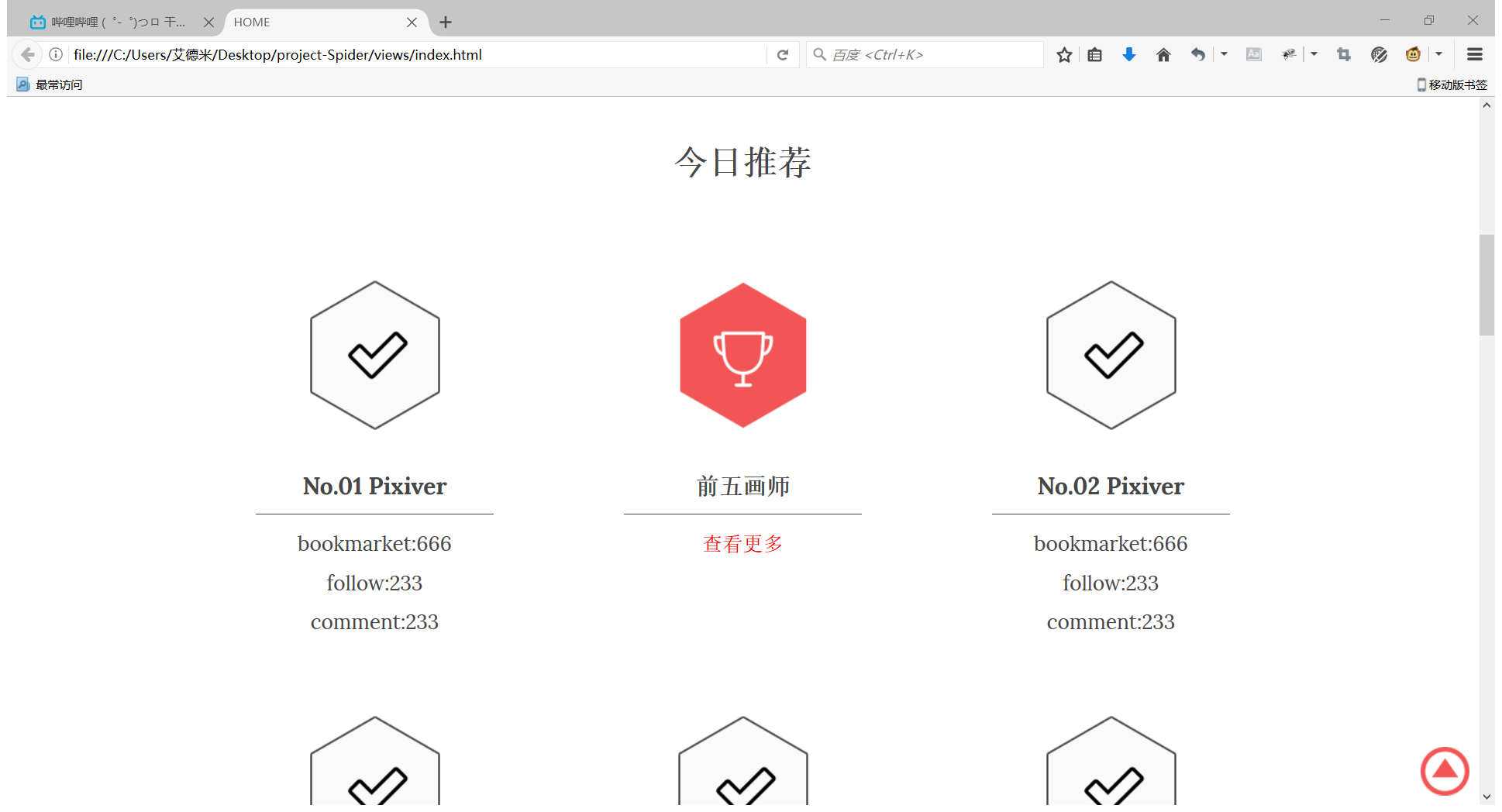
## Screen Images

Interface如下：

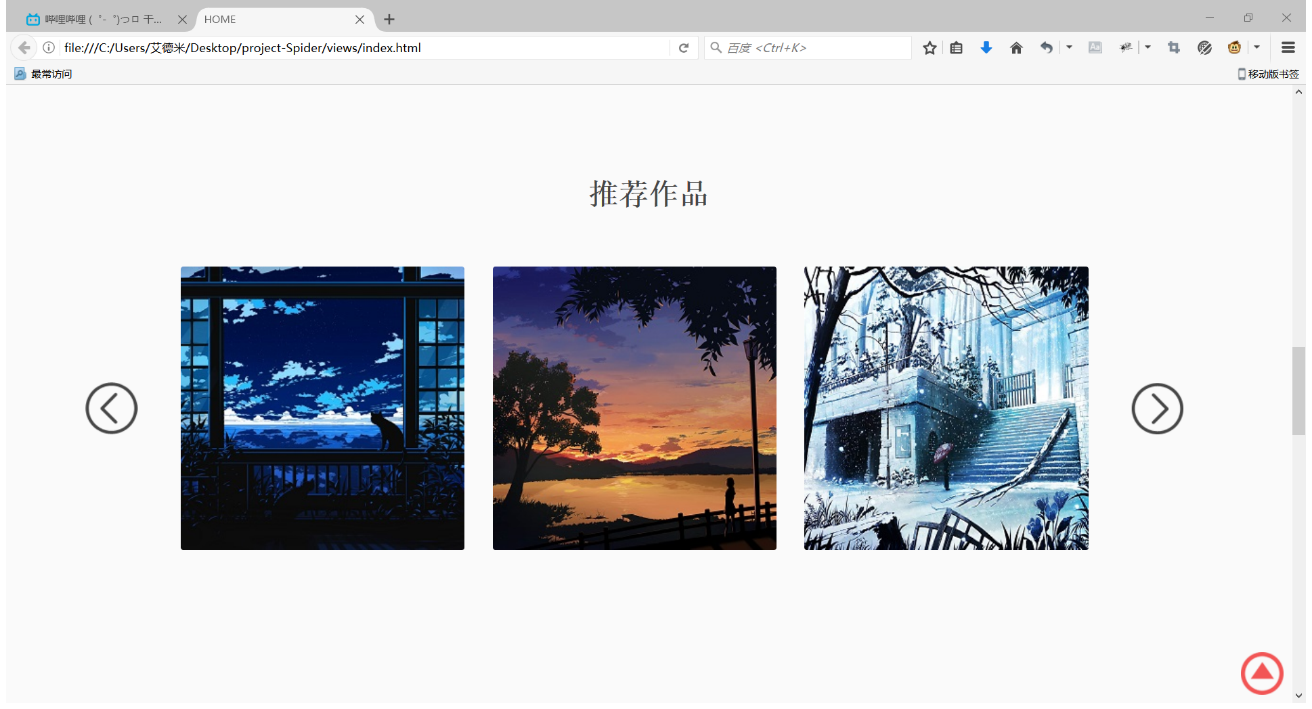
1.首页



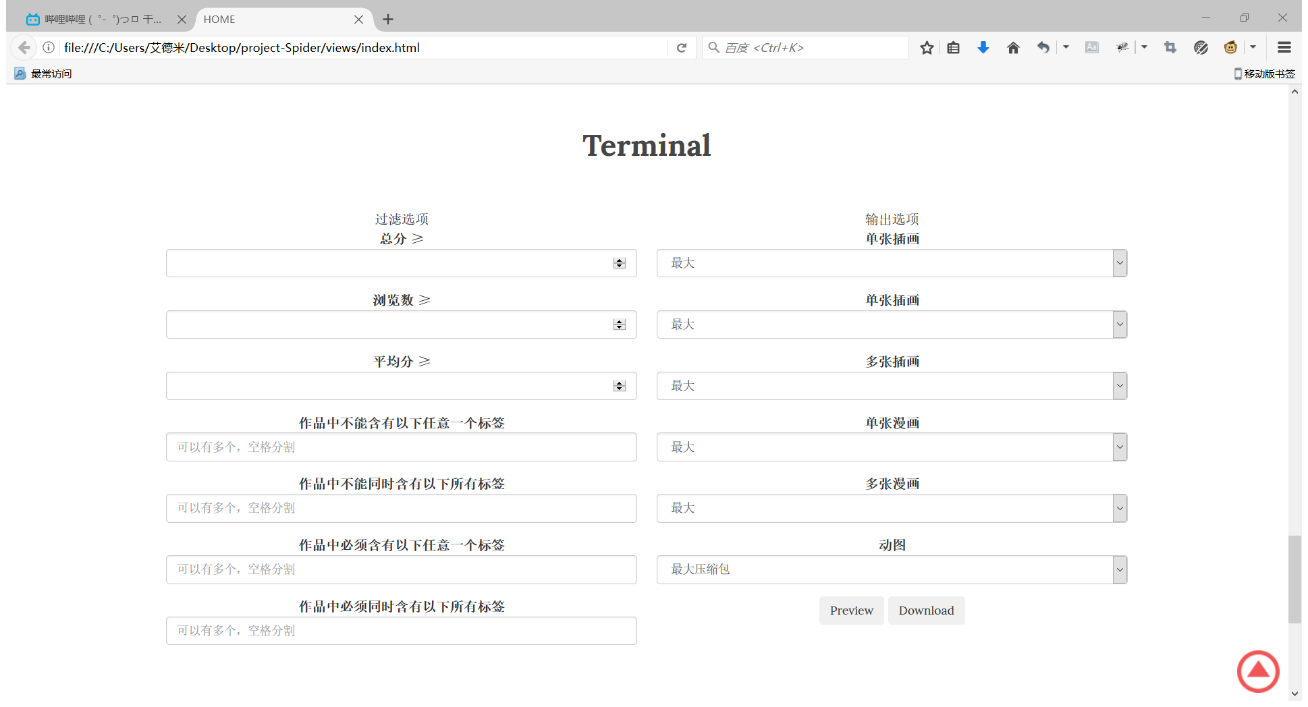
2.今日推荐



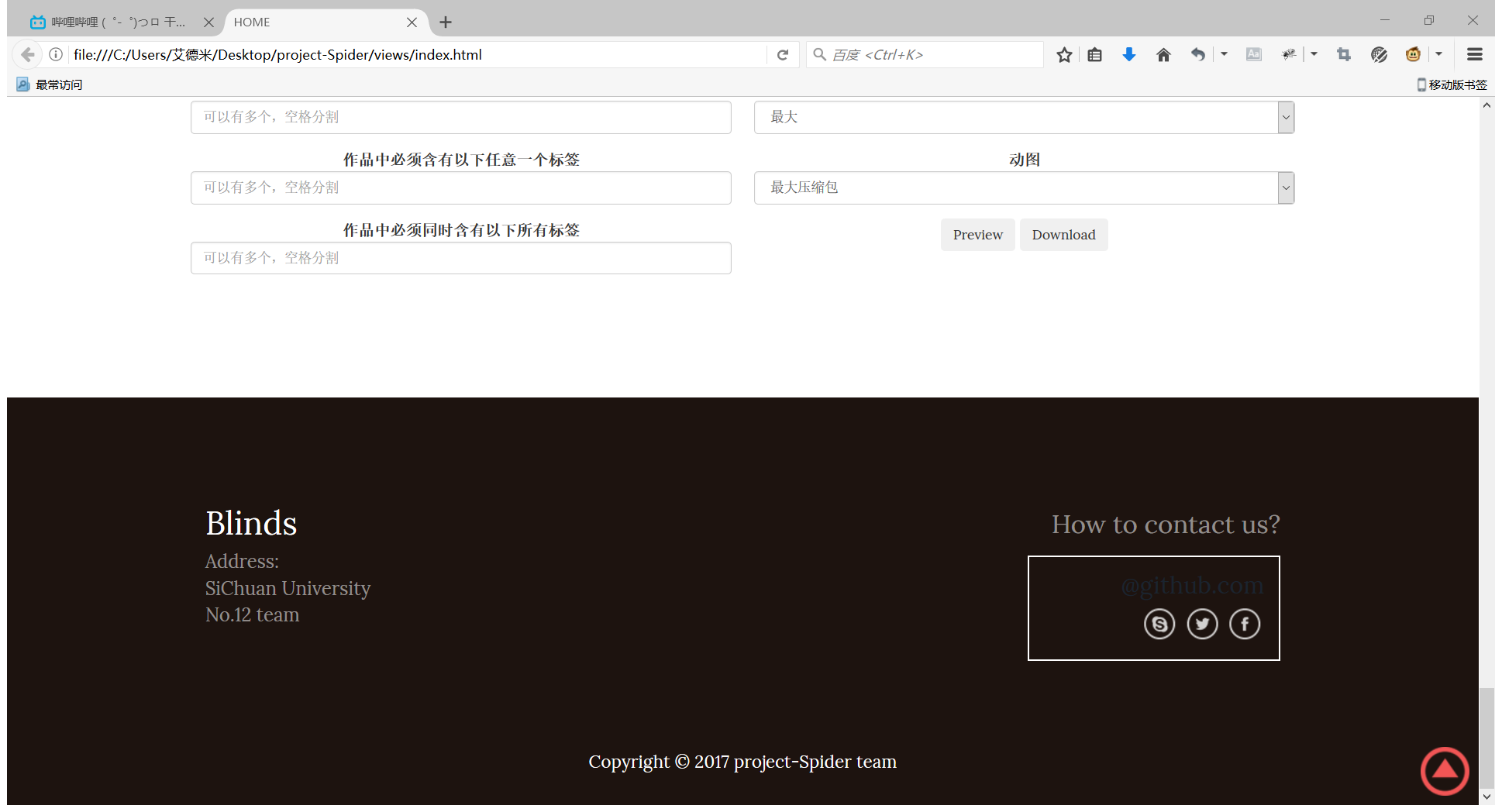
3.推荐作品



4.选择条件并下载



5.关于开发者



## Screen Objects and Actions

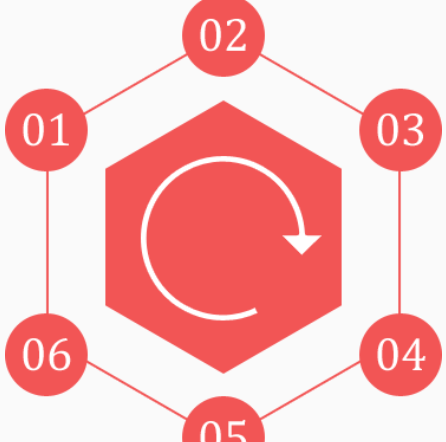
A discussion of screen objects and actions associated with those objects.

当点击如下按钮，进入本项目GitHub页面

当点击如下按钮，页面移动到Terminal页面

当点击如下按钮，页面移动到画师页面

当点击如下图片，页面移动到作品页面

当点击如下按钮，刷新资讯

当点击如下button，得到预览结果

当点击如下button，得到下载结果

当点击如下button，页面移动到最上部

# REQUIREMENTS MATRIX

Provide a cross­reference that traces components and data structures to the requirements in your SRS document.

Use a tabular format to show which system components satisfy each of the functional requirements from the SRS. Refer to the functional requirements by the numbers/codes that you gave them in the SRS.

# APPENDICES

*无*