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细说Django的admin

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在 admin.py 中只需要将地 Model 中某个类注册,即可在Admin中进行增删查改的功能,例如:

```
admin.site.register(models.UserInfo)
```

这种方式比较简单,如果想要进行更多的定制操作,就需要利用 Model Admin 进行操作

方式一

```
from django.contrib import admin
from . import models

class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish')

admin.site.register(models.Book,BookAdmin)
```

没有设置 BookAdmin 时,系统默认为 ModelAdmin

models.Book 实际上是一个列表,也可以写成

```
from django.contrib import admin
from . import models

class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish')

admin.site.register([models.Book,],BookAdmin)
```

这个参数里可以写多个表名,但要注意的是这里面添加的表名都必须要有 list_display 中声明要显示的字段

方式二

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title', 'price', 'publish')
```

在 ModelAdmin 中提供了大量的可定制的功能

定制admin

1.list_display:显示列表时,定制显示的列

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish')
```

在后台管理页面中,显示书的名称,价格以及出版社等信息

Home · App_01 · Books Select book to change



在class类中还有如下用法:

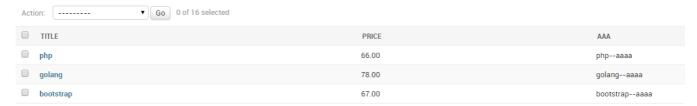
```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','aaa')

    def aaa(self,obj):
        return obj.title+"--aaaa"
```

显示如下

Select book to change



2.list_display_links:列表时,定制列可以点击跳转

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish')
    list_display_links = ('title','price','publish')
```

在后台页面显示的时候,所显示的列为可以点击跳转

3.list_filter:列表时,定制右侧快速筛选

例子一:

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):

list_display = ('title','price','publish')
list_filter = ('classification','publish')
```

ADD BOOK +

```
By classification

All
文学
机械
科学
计算机

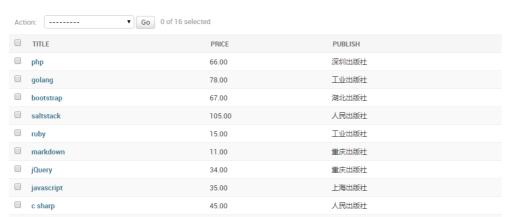
By publish

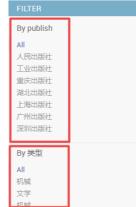
All
人民出版社
工业出版社
重庆出版社
湖北出版社
上海出版社
广州出版社
深圳出版社
深圳出版社
```

例子二:

```
from django.contrib import admin
\quad \hbox{from . import models} \quad
@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
   list_display = ('title','price','publish')
    class Ugg(admin.SimpleListFilter):
        title=uget('类型')
        parameter_name = "book"
        def lookups(self, request, model_admin):
            显示筛选选项,列出价格大于100的书箱的类型
            :param request:
            :param model_admin:
            :return:
            return models.Book.objects.filter(price__gt=100).values_list("publish","classification")
        def queryset(self, request, queryset):
            点击查询时,进行筛选
            :param request:
            :param queryset:
            :return:
            v1=self.value()
            return queryset
    list filter = ["publish", Ugg,]
```

Select book to change





4.list_select_related:列表时,连表查询是否自动select_related

使用联表查询可以提高数据库的查询性能

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish')

list_select_related = ["publish"] # 联表查询出版社的信息
```

5. 分页相关

list_per_page=10 # 分页,每页显示的数据条数
list_max_show_all=100 # 分页,显示全部数据时,最多显示的数据条数
paginator=Paginator # 分布插件

例如:

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):

    list_display = ('title','price','publish')
    list_per_page = 2
```

效果如下:

Select book to change



6. list_editable:列表时,可以编辑的列

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish')

list_editable = ('price','publish')
```

Select book to change



7. search_fields:列表时,模糊搜索的功能

```
from django.contrib import admin
from . import models

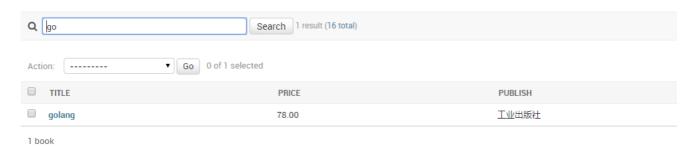
@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish')

list_select_related = ["publish"]

search_fields = ['title','classification']
```

效果如下:

Select book to change



8. date_hierarchy:列表时,对Date和DateTime类型进行搜索

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish','publication_date')

list_select_related = ["publish"]

date_hierarchy="publication_date"
```

效果如下:

golang

2016 2017 ▼ Go 0 of 16 selected Action: -----☐ TITLE PRICE PUBLICATION DATE **PUBLISH** php 66.00 深圳出版社 June 7, 2017 golang 78.00 工业出版社 May 27, 2017 湖北出版社 bootstrap 67.00 Sept. 5, 2017 «All dates January 2017 February 2017 April 2017 May 2017 June 2017 July 2017 August 2017 September 2017 ▼ Go 0 of 15 selected Action: -----☐ TITLE PRICE PUBLISH **PUBLICATION DATE** php 深圳出版社 June 7, 2017 66.00

工业出版社

May 27, 2017

9. preserve_filters:详细页面,删除、修改,更新后跳转回列表后,是否保留原搜索条件

78.00

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish','publication_date')

list_select_related = ["publish"]

search_fields = ['title', 'classification']

preserve_filters=True
```



10. save_as = False:详细页面,按钮为"Save as new" 或 "Save and add another"

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish','publication_date')

list_select_related = ["publish"]

save_as = True
```

效果如下:



效果如下:

```
Save and add another

Save and continue editing

SAVE
```

11. save_as_continue = True:点击保存并继续编辑

用法与上一个用法相同

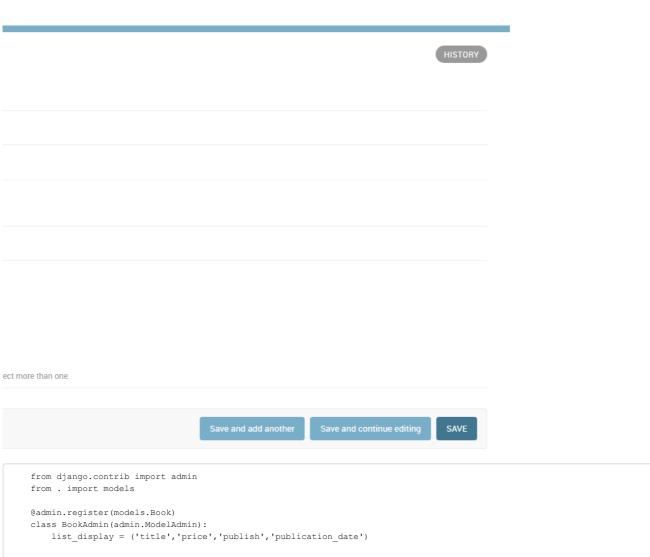
12. save_on_top = False:详细页面,在页面上方是否也显示保存删除等按钮

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price','publish','publication_date')

list_select_related = ["publish"]

save_on_top = False
```



```
list_select_related = ["publish"]
save_on_top = True
```

SAVE

13. inlines:详细页面,如果有其他表和当前表做FK,那么详细页面可以进行动态增加和删除

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price')

class BookInline(admin.StackedInline):
    extra=0
    model=models.Book

class PublishAdmin(admin.ModelAdmin):
    inlines = [BookInline,]
    list_display = ['name','addr']

admin.site.register(models.Publish,PublishAdmin)
```

Add publish	
Name:	
Addr.	
воокѕ	
Book: #1	
Title:	
Price:	
Publication date: Note: You are 8 hours ahead of	Today I fine.
Classification:	
Authors:	小冰 小明 小红帽 小平 小李 小刘 小漏 —————————————————————————————————
Book: #2	
Title:	
Price:	
Publication date:	Today I ∰

在编辑或添加出版社的时候可以同时添加多本书箱数据,添加书籍信息的时候是纵向添加书籍信息的

在这里 BookInline 这个类还可以继承 TabularInline 这个类实现横向添加书籍信息

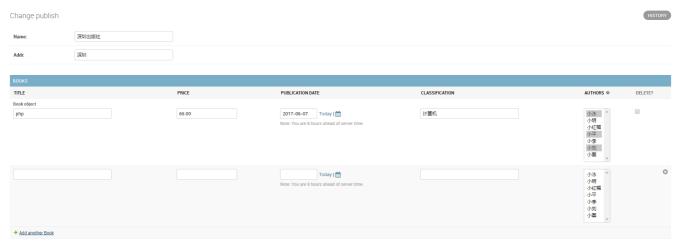
```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ('title','price')

class BookInline(admin.TabularInline):
    extra=0
    model=models.Book

class PublishAdmin(admin.ModelAdmin):
    inlines = [BookInline,]
    list_display = ['name','addr']

admin.site.register(models.Publish,PublishAdmin)
```



14. action:列表时,定制action中的操作

```
from django.contrib import admin
from . import models
@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
   list_display = ('title','price')
   def func1(self,request,queryset):
                                     # 定义具体的action的方法
   func1.short_description = "自定义操作" # 在页面上显示方法的名称
   actions_on_top = True
                                       # action在页面上方显示
                                       # action在页面下方显示
   actions on bottom = False
                                       # 显示页面上选择数据的条数
   actions_selection_counter = True
   actions=[func1,]
                                       # 添加定制的action的操作
```

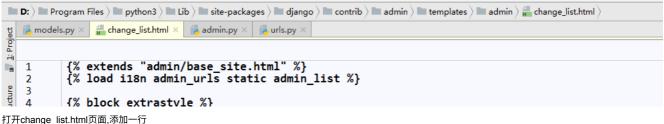
在action列表中,添加一个func1的功能

Select book to change



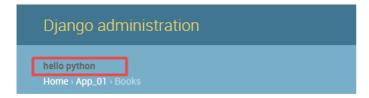
15. 定制HTML模板

Django后台管理页面默认使用的模板是 change_list.html



<h3>hello python</h3>

刷新浏览器,可以看到



Select book to change

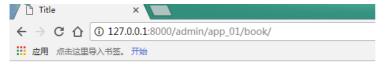
可以设置的选项有:

```
# 添加数据的模板
add form template = None
                                         # 修改数据的模板
change_form_template = None
change_list_template = None
                                         # 显示数据的模板
delete_confirmation_template = None
                                         # 删除数据时确认页面的模板
delete selected confirmation template = None
                                        # 选中之后删除的确认页面
                                         # 有ForeignKey时关联数据进行处理的模板
object_history_template = None
```

例子:

```
from django.contrib import admin
from . import models
@admin.register(models.Book)
class BookAdmin (admin.ModelAdmin):
   list_display = ('title','price')
    change_list_template = ['change_list1.html']
```

效果如下:



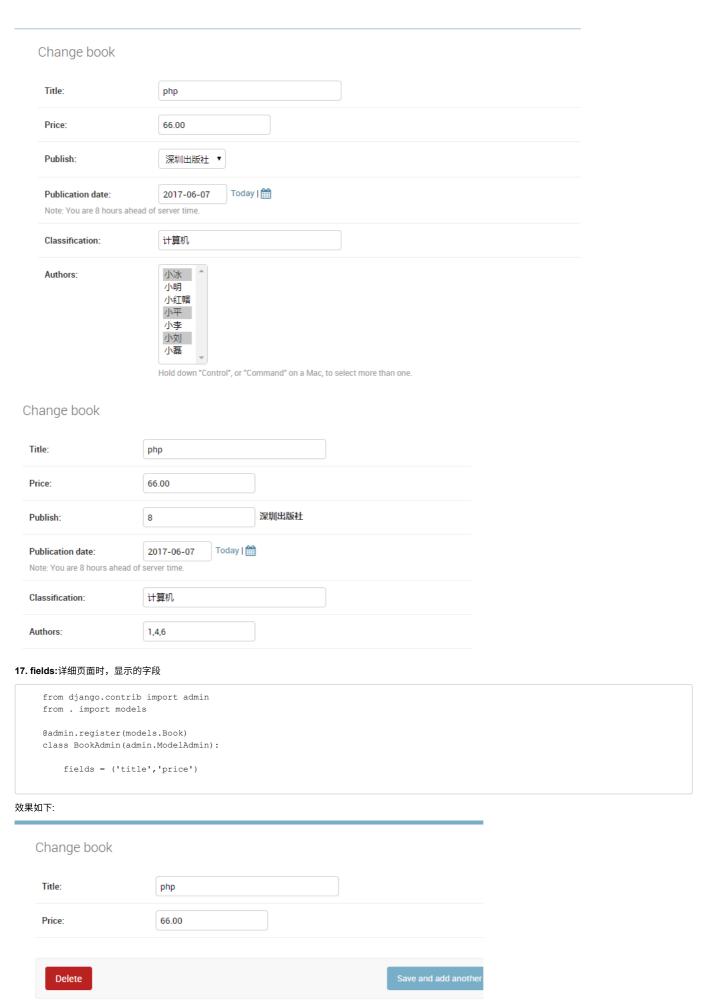
hello python

16. raw_id_fields:详细页面,针对FK和M2M字段变成以Input框形式

正常显示的时候, FK 和 M2M 字段是通过下拉框来进行操作的

添加 raw_id_fields 配置后,针对 FK 和 M2M 字段变成以 Input 框形式

```
from django.contrib import admin
from . import models
@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
   list_display = ('title','price','classification')
    raw id fields = ('publish', 'authors')
```

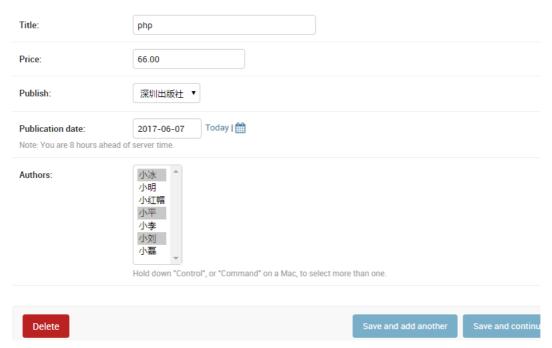


```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):

    exclude = ('classification',)
```

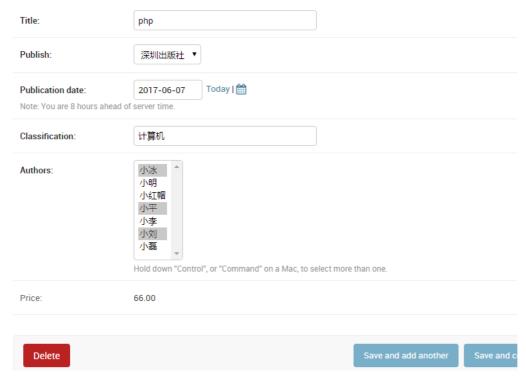
Change book



19. readonly_fields:详细页面时,只读字段

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    readonly_fields = ('classification',)
```



20. fieldsets:详细页面时,使用fieldsets标签对数据进行分割显示

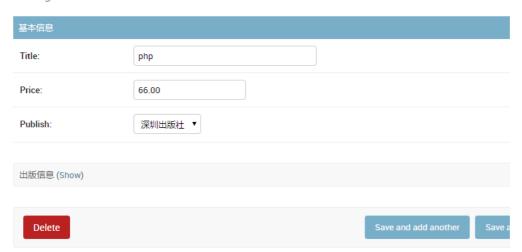
```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):

fieldsets = (
    ("基本信息",{
        "fields":("title","price","publish",)
        }),
        ("出版信息",{
        "classes":("collapse","wide","extrapretty"),
        "fields":("classification","authors","publication_date",)
        }),
    )
}),
)
```

效果如下:

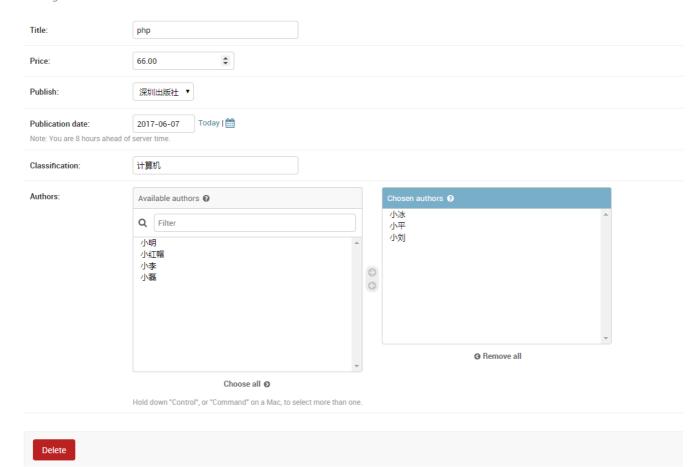
Change book





```
from django.contrib import admin
from . import models
@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    filter_vertical = ("authors",)
```

Title:	php	
Price:	66.00	
Publish:	深圳出版社 ▼	
Publication date: Note: You are 8 hours ahead o	2017-06-07 Today I fine factorial server time.	
Classification:	计算机	
Authors:	Available authors ② Q Filter 小明 小李 小嘉 小平 Chosen authors ② 小冰 小刘 小红帽	
Delete	Hold down "Control", or "Command" on a Mac, to select more than one.	
from django.contrib impor from .import models @admin.register(models.Bo class BookAdmin(admin.Mod filter_horizontal = (ok) elAdmin):	



22. ordering:列表时,数据排序规则

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title", "price", "classification", "publish")
    ordering=("-price",)
```

效果如下:

Select book to change

ADD B

Action:	▼ Go 0 of 16 selected		
□ TITLE	PRICE	CLASSIFICATION	PUBLISH
saltstack	105.00	机械	人民出版社
openstack	89.00	文学	广州出版社
golang	78.00	科学	工业出版社
bootstrap	67.00	计算机	湖北出版社
□ linux	67.00	机械	广州出版社
php	66.00	计算机	深圳出版社
□ mysql	55.00	机械	湖北出版社
zabbix	54.00	计算机	上海出版社
swift	51.00	计算机	湖北出版社

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title", "price", "classification", "publish")
    ordering=("price",)
```

Select book to change

ADD BOOK

Action:	Go 0 of 16 selected		
□ TITLE	PRICE	CLASSIFICATION	PUBLISH
markdown	11.00	科学	重庆出版社
□ ruby	15.00	文学	工业出版社
perl	28.00	科学	工业出版社
Query	34.00	机械	重庆出版社
javascript	35.00	文学	上海出版社
C sharp	45.00	科学	人民出版社
python	48.00	文学	工业出版社
swift	51.00	计算机	湖北出版社

23. view_on_site:编辑时,是否在页面上显示view on set

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title", "price", "classification", "publish")

def view_on_site(self,obj):
    return "http://www.baidu.com"
```

点击 view on set 按钮,浏览器会指向 "http://www.baidu.com"

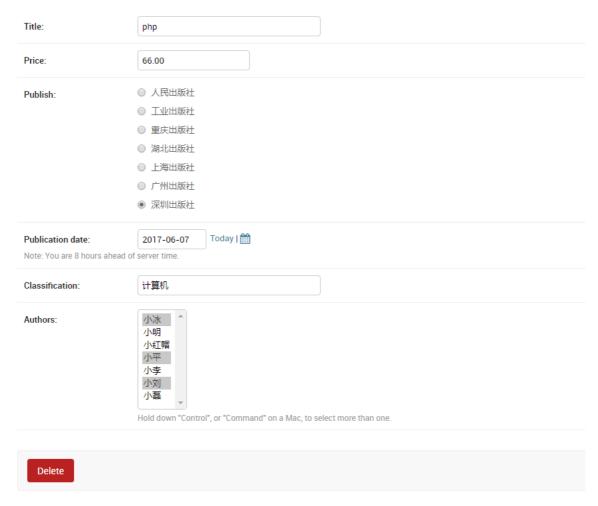
HISTORY VIEW ON SITE >

24. radio_fields:详细页面时,使用radio显示选项(FK默认使用select)

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title","price","classification","publish")

    radio_fields = {"publish":admin.VERTICAL}
```



25. show_full_result_count = True:列表时,模糊搜索后面显示的数据个数样式

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title", "price", "classification", "publish")

search_fields = ('title', 'classification')

show_full_result_count = True
```

效果如下:

Select book to change Q p Search (16 total) ▼ Go 0 of 7 selected Action: -----TITLE PRICE CLASSIFICATION PUBLISH 深圳出版社 php 66.00 计算机 bootstrap 67.00 计算机 湖北出版社 文学 javascript 35.00 上海出版社 c sharp 45.00 科学 人民出版社 广州出版社 openstack 89.00 文学 28.00 科学 工业出版社 perl python 48.00 文学 工业出版社

27. prepopulated_fields = {}:添加页面,当在某字段填入值后,自动会将值填充到指定字段

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title", "price", "classification", "publish")

search_fields = ('title', 'classification')

prepopulated_fields = {"title":("classification",)}
```

效果如下:

Add book

Title:	ааааааааааааааааааа
Price:	
Publish:	▼
Publication date: Note: You are 8 hours ahea	Today I mid of server time.
Classification:	аааааааааааааааааа

28. form = ModelForm:用于定制用户请求时候表单验证

未进行配置之前:

Add book

Please correct the en	rors below.
Title:	This field is required.
Price:	This field is required.
Publish:	This field is required.
Publication date: Note: You are 8 hours ah	This field is required. Today I ead of server time.
Classification:	This field is required.

修改配置文件:

```
from django.contrib import admin
from . import models
from django.forms import ModelForm

class MyForm(ModelForm):
    class Meta:
        model=models.Book
        fields="_all__"
        error_messages = {
            "title": ('required': "书名不能为空"),
            "price": ('required': "价格不能为空")
        } # 自定义错误信息,用户输入错误时显示

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title", "price", "classification", "publish")

search_fields = ('title', 'classification')
form=MyForm
```

Add book

Please correct the errors below.	
Title:	书名不能为空
Price:	价格不能为空
Publish:	This field is required.
Publication date: Note: You are 8 hours ah	This field is required. Today I ead of server time.

29. empty_value_display = "列数据为空时,显示默认值"

```
from django.contrib import admin from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title", "price", "classification", "publish")
    search_fields = ('title', 'classification')
    empty_value_display="列数据为空时,默认显示"
```

总结:

在定制admin的所有的操作的时候都是在配置文件中完成的.在配置文件中,可以进行配置的有数据表的字段,函数和类在某个页面中,可以配置使用自定义的模板.同样的,请求到达Django的时候,也可以配置使其执行自定义的函数

ModelAdmin 是放置在 options.py 文件中的.

打开 options.py 文件,可以看到 ModelAdmin 里有一个叫做 changelist_view 的方法

```
from django.contrib import admin
from . import models

@admin.register(models.Book)
class BookAdmin(admin.ModelAdmin):
    list_display = ("title","price","classification","publish")

search_fields = ('title','classification')

empty_value_display="列数据为空时,默认显示"
```

可以看到, BookAdmin 是继承自 ModelAdmin 这个类的, ModelAdmin 里有一个 changelist_view 的方法

所以在 BookAdmin 中也可以自定义一个 changelist_view 的视图函数.