



# DJANGO CHEAT SHEET

Version 1.5

## Form fields

Common kwargs	Dates & Times
<b>required</b> =True <b>label</b> =string <b>help_text</b> =string <b>initial</b> =value_or_function <b>validators</b> =list_of_validators <b>widget</b> =Widget_class <b>error_messages</b> =dict <b>localize</b> =False (e.g. localize dates, decimals)	<b>DateField</b> [input_formats=iterable] <b>TimeField</b> [input_formats=iterable] <b>DateTimeField</b> [input_formats=iterable] <b>SplitDateTimeField</b> [input_date_formats=iterable] [input_time_formats=iterable]
	Numbers
	<b>IntegerField</b> [max_value=int] [min_value=int] <b>FloatField</b> [max_value=float] [min_value=float] <b>DecimalField</b> [max_digits=number] [decimal_places=number] [max_value=decimal] [min_value=decimal]
	Files
	<b>FileField</b> [max_length=number] (of filename) [allow_empty_file=False] <b>ImageField</b> [max_length=number] (of filename) [allow_empty_file=False] <b>FilePathField</b> [path=directory_path] [recursive=False] [match=regex] [allow_files=True] [allow_folders=False]
	Internet
	<b>EmailField</b> [min_length=number] [max_length=number] <b>URLField</b> [min_length=number] [max_length=number] <b>IPAddressField</b> (IPv4) <b>GenericIPAddressField</b> (IPv4/IPv6) [protocol="both" "IPv4" "IPv6"] [unpack_ipv4=False]
	Misc
	<b>ComboField</b> [fields=tuple] <b>MultiValueField</b> [fields=tuple]

error_messages keys				
<b>required</b>	<b>invalid</b> (int, email, etc.)	<b>max_value</b>	<b>missing</b> (file)	<b>invalid_list</b>
<b>min_length</b>	<b>invalid_date</b>	<b>max_digits</b>	<b>empty</b> (file)	
<b>max_length</b>	<b>invalid_time</b>	<b>max_decimal_places</b>	<b>invalid_image</b>	
<b>invalid_choice</b>	<b>min_value</b>	<b>max_whole_digits</b>	<b>invalid_pk_value</b>	

## Form & widget Media

```
class Media:
    css = {"all" | screen | print": (filenames), ... }
    js = (filenames)
    [extend = True]
```

## Validators

**MaxLengthValidator**(length)  
**MinLengthValidator**(length)  
**validate\_email**  
**validate\_slug**  
**validate\_url**  
**RegexValidator**([regex=""], [message="Enter a valid value"], [code="invalid"])  
**MaxValueValidator**(value)  
**MinValueValidator**(value)  
**validate\_ipv4\_address**  
**validate\_ipv6\_address**  
**validate\_ipv46\_address**  
**validate\_comma\_separated\_integer\_list**

## Formsets

```
FormSetClass = formset_factory(form,
    [extra=1.] [max_num=None],
    [can_order=False], [can_delete=False],
    [formset=BaseFormSet])
```

```
FormSetClass(data, [files.] [initial=list.]
    [prefix=string])
```

### Formset attributes

**formset.empty\_form**  
**formset.management\_form**  
**formset.ordered\_forms**

### Form attributes

**form.ORDER**  
**form.DELETE**

## Widgets

General	Choices
<b>TextInput</b> <b>PasswordInput</b> [format=date_format] <b>HiddenInput</b> <b>TextArea</b>	<b>Select</b> [choices=iterable] <b>NullBooleanSelect</b> [choices=((1, "Unknown"), (2, "Yes"), (3, "No"))] <b>RadioSelect</b> [choices=iterable] <b>SelectMultiple</b> [choices=iterable] <b>CheckboxSelectMultiple</b> [choices=iterable] <b>MultipleHiddenInput</b> [choices=iterable]
Dates & times	
<b>DateInput</b> [format=date_format] <b>DateTimeInput</b> [format=datetime_format] <b>TimeInput</b> [format=time_format] <b>SplitDateTimeWidget</b> [date_format=date_format] [time_format=time_format] <b>SplitHiddenDateTimeWidget</b> <b>SelectDateWidget</b> [years=iterable]	
Files	
<b>FileInput</b> <b>ClearableFileInput</b>	
Common kwargs	
	<b>attrs</b> =dict eg. {"class": "foo", "rows": "5"}

## ModelForms & ModelFormSets

ModelForm Meta attributes	Factories
<b>abstract</b> =False <b>app_label</b> =string <b>db_table</b> =string <b>model</b> =model <b>fields</b> =tuple <b>exclude</b> =tuple <b>widgets</b> =dict { "field": TextInput() }	<b>modelform_factory</b> (model, [form=FormClass.] [fields=tuple.] [exclude=tuple.] [widgets=dict]) <b>modelformset_factory</b> (model, queryset=queryset, [formset=BaseModelFormSet,] ...) <b>inlineformset_factory</b> (parent_model, child_model, [fk_name=field.] [can_delete=True.] [formset=BaseInlineFormSet,] ...)

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## Model fields showing defaults

### Common kwargs

<b>null</b> =False	<b>help_text</b> =string
<b>blank</b> =False	<b>primary_key</b> =False
<b>choices</b> =iterable	<b>unique</b> =False
<b>db_column</b> =name	<b>unique_for_date</b> =date_field_name
<b>db_index</b> =False	<b>unique_for_month</b> =date_field_name
<b>default</b> =value_or_function	<b>unique_for_year</b> =date_field_name
<b>editable</b> =True	<b>verbose_name</b> =string
<b>error_messages</b> =dict	<b>validators</b> =iterable

### Numbers

<b>AutoField</b>	<b>primary_key</b> =True (mandatory)
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### Booleans

<b>BooleanField</b>
<b>NullBooleanField</b>

### Numbers

<b>IntegerField</b> (>= 32 bit)
<b>PositiveIntegerField</b> (>= 32 bit)
<b>SmallIntegerField</b> (DB specific size)
<b>PositiveSmallIntegerField</b> (DB specific size)
<b>BigIntegerField</b> (64 bit)

<b>DecimalField</b>	<b>max_digits</b> =number	<b>decimal_places</b> =number
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### FloatField

### Strings

<b>CharField</b>	<b>max_length</b> =number
<b>TextField</b>	
<b>SlugField</b>	<b>[max_length=50]</b>
<b>CommaSeparatedIntegerField</b>	<b>max_length</b> =number

### Strings

<b>CharField</b>	<b>max_length</b> =number
<b>TextField</b>	
<b>SlugField</b>	<b>[max_length=50]</b>
<b>CommaSeparatedIntegerField</b>	<b>max_length</b> =number

### Dates & times

<b>DateField</b>	<b>[auto_now=False]</b> <b>[auto_now_add=False]</b>
<b>DateTimeField</b>	<b>[auto_now=False]</b> <b>[auto_now_add=False]</b>
<b>TimeField</b>	<b>[auto_now=False]</b> <b>[auto_now_add=False]</b>

### Internet

<b>EmailField</b>	<b>[max_length=75]</b>
<b>URLField</b>	<b>[max_length=200]</b>
<b>IPAddressField (IPv4)</b>	
<b>GenericIPAddressField</b>	<b>[protocol="both"   "IPv4"   "IPv6"]</b> <b>[unpack_ipv4=False]</b>

### Files

<b>FileField</b>	<b>upload_to=</b> path_or_function <b>[storage=storage]</b> <b>[max_length=number]</b>
<b>ImageField</b>	<b>upload_to=</b> path_or_function <b>[storage=storage]</b> <b>[height_field=field_name]</b> <b>[width_field=field_name]</b> <b>[max_length=number]</b>
<b>FilePathField</b>	<b>path=</b> path <b>[match=regex]</b> <b>[recursive=False]</b> <b>[allow_files=True]</b> <b>[allow_folders=False]</b> <b>[max_length=100]</b>

### Relationships

<b>ForeignKey</b>	<b>model</b> (or "self") <b>[limit_choices_to=dict_or_Q]</b> <b>[related_name=string]</b> <b>[to_field=field_name]</b> <b>[on_delete=action]</b>
<b>OneToOneField</b>	<b>model</b> (or "self") <b>[limit_choices_to=dict_or_Q]</b> <b>[related_name=string]</b> <b>[to_field=field_name]</b> <b>[on_delete=action]</b> <b>[parent_link=False]</b>
<b>ManyToManyField</b>	<b>[parent_link=False]</b>

### error\_messages keys

<b>null</b>
<b>blank</b>
<b>unique</b>
<b>invalid</b>
<b>invalid_choice</b>
<b>invalid_date</b>

### on\_delete actions

<b>CASCADE</b>	<b>SET_DEFAULT</b>
<b>PROTECT</b>	<b>SET(value_or_function)</b>
<b>SET_NULL</b>	<b>DO_NOTHING</b>

### Model Meta attributes

<b>abstract</b> =False	<b>ordering</b> =tuple
<b>app_label</b> =string	<b>permissions</b> =tuple
<b>db_table</b> =string	<b>proxy</b> =False
<b>db_tablespace</b> =string	<b>unique_together</b> =tuple
<b>get_latest_by</b> =field_name	<b>index_together</b> =tuple
<b>managed</b> =True	<b>verbose_name</b> =string
<b>order_with_respect_to</b> =field_name	<b>verbose_name_plural</b> =string

## Validators

<b>MaxLengthValidator</b> (length)	<b>MaxValueValidator</b> (value)
<b>MinLengthValidator</b> (length)	<b>MinValueValidator</b> (value)
<b>validate_email</b>	<b>validate_ipv4_address</b>
<b>validate_slug</b>	<b>validate_ipv6_address</b>
<b>validate_url</b>	<b>validate_ipv46_address</b>
<b>RegexValidator</b> ([regex=""], [message="Enter a valid value"], [code="invalid"])	<b>validate_comma_separated_integer_list</b>

## QuerySets

### Methods that return QuerySets

<b>all()</b>
<b>none()</b>
<b>filter</b> (query)
<b>exclude</b> (query)
<b>order_by</b> (field, ...)
<b>reverse()</b>
<b>annotate</b> (aggregate_query)
<b>distinct</b> ([field, ...])
<b>values</b> (field, ...)
<b>values_list</b> (field, ..., [flat=False])
<b>dates</b> (field, kind="year   month   day", [order="ASC   DESC"])
<b>select_related</b> ([field, ...])
<b>prefetch_related</b> ([field, ...])
<b>defer</b> (field, ...)
<b>only</b> (field, ...)
<b>using</b> (database_alias)
<b>select_for_update</b> ([nowait=False])
<b>extra</b> ([select=...], [select_params=...], [tables=...], [where=...], [params=...], [order_by=...])

### QuerySet & Queries

<b>exact</b> =value   None	<b>lt</b> =value
<b>iexact</b> =value	<b>lte</b> =value
<b>contains</b> =string	<b>in</b> =iterable   queryset
<b>icontains</b> =string	<b>range</b> =(start, end)
<b>startswith</b> =string	<b>year</b> =year
<b>istartswith</b> =string	<b>month</b> =1 - 12
<b>endswith</b> =string	<b>day</b> =1 - 31
<b>iendswith</b> =string	<b>week_day</b> =1 (Sun) - 7 (Sat)
<b>regex</b> =pattern	<b>isnull</b> =boolean
<b>iregex</b> =pattern	<b>search</b> =mysql fulltext query
<b>gt</b> =value	
<b>gte</b> =value	

### Aggregation functions

<b>Count</b> (field, [distinct=False])
<b>Sum</b> (field)
<b>Max</b> (field)
<b>Min</b> (field)
<b>Avg</b> (field)
<b>StdDev</b> (field, [sample=False])
<b>Variance</b> (field, [sample=False])

### Other methods

<b>get</b> (query) → instance	<b>aggregate</b> (aggregate_query) → dict
<b>create</b> (query) → instance	<b>update</b> (field=value, ...)
<b>get_or_create</b> (query) → (instance created)	<b>delete</b> ()
<b>earliest</b> ([field_name]) → instance	<b>in_bulk</b> (ids) → instances dict, keyed by id
<b>latest</b> ([field_name]) → instance	<b>bulk_create</b> (instances, [batch_size=number])
<b>exists</b> () → boolean	<b>iterator</b> () → iterator
<b>count</b> () → number	

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## ModelAdmin

<b>List columns</b>	<b>Form contents</b>
<b>list_display</b> = <i>field_names</i> <b>list_display_links</b> = <i>field_names</i> <b>list_editable</b> = <i>field_names</i> <b>list_filter</b> = <i>field_names</i> <b>search_fields</b> = <i>field_names</i> <b>date_hierarchy</b> = <i>field_name</i>	<b>filter_horizontal</b> = <i>field_names</i> <b>filter_vertical</b> = <i>field_names</i> <b>radio_fields</b> = <i>dict</i> : { <i>choice_field</i> : HORIZONTAL VERTICAL, ...} <b>fieldsets</b> = <i>dict</i> : ( ( <i>title</i>  None, { [ <i>fields</i> : <i>field_names</i> ,] [ <i>classes</i> : list,] [ <i>description</i> : string,] }), .. ) <b>save_on_top</b> = <i>False</i>
<b>List actions</b>	<b>Form layout</b>
<b>actions</b> = <i>list</i> <b>actions_on_top</b> = <i>True</i> <b>actions_on_bottom</b> = <i>False</i> <b>actions_selection_counter</b> = <i>True</i> <b>ordering</b> = <i>field_names</i>	<b>add_form_template</b> = <i>template</i> <b>change_form_template</b> = <i>template</i> <b>change_list_template</b> = <i>template</i> <b>delete_confirmation_template</b> = <i>template</i> <b>delete_selected_confirmation_template</b> = <i>template</i> <b>object_history_template</b> = <i>template</i>
<b>List options</b>	<b>Templates</b>
<b>ordering</b> = <i>field_names</i> <b>list_select_related</b> = <i>False</i> <b>list_per_page</b> = 100 <b>list_max_show_all</b> = 200 <b>paginator</b> = <i>paginator_class</i>	<b>add_form_template</b> = <i>template</i> <b>change_form_template</b> = <i>template</i> <b>change_list_template</b> = <i>template</i> <b>delete_confirmation_template</b> = <i>template</i> <b>delete_selected_confirmation_template</b> = <i>template</i> <b>object_history_template</b> = <i>template</i>
<b>Form contents</b>	<b>Queryset</b>
<b>fields</b> = <i>field_names</i> <b>exclude</b> = <i>field_names</i> <b>inlines</b> = <i>inline_classes</i> <b>readonly_fields</b> = <i>field_names</i> <b>raw_id_fields</b> = <i>field_names</i> <b>prepopulated_fields</b> = <i>dict</i> { <i>slug</i> : ( <i>title</i> ), ...} <b>form</b> = <i>form_class</i> <b>formfield_overrides</b> = <i>dict</i> <b>save_as</b> = <i>False</i>	<b>queryset</b> (self, request) → <i>queryset</i>
<b>Saving</b>	
<b>save_model</b> (self, request, obj, form, is_change) – must call obj.save() <b>delete_model</b> (self, request, obj) – must call obj.delete() <b>save_formset</b> (self, request, form, formset, is_change) – must call formset.save() <b>save_related</b> (self, request, form, formsets, is_change) - must call save() for each formset	
<b>Permissions</b>	
<b>has_add_permission</b> (self, request) → <i>boolean</i> <b>has_change_permission</b> (self, request, obj=None) → <i>boolean</i> <b>has_delete_permission</b> (self, request, obj=None) → <i>boolean</i>	
<b>URLs</b>	
<b>get_urls</b> (self) → <i>urlpatterns</i>	

<b>Change List</b>
<b>get_ordering</b> (self, request) → <i>field_names</i> <b>get_list_display</b> (self, request) → <i>field_names</i> <b>get_list_display_links</b> (self, request, list_display) → <i>field_names</i> <b>get_list_filter</b> (self, request) → <i>field_names</i> <b>get_changelist</b> (self, request, **kwargs) → <i>ChangeList_class</i> <b>get_changelist_form</b> (self, request, **kwargs) → <i>ModelForm_class</i> <b>get_changelist_formset</b> (self, request, **kwargs) → <i>ModelFormSet_class</i> <b>get_paginator</b> (self, request, queryset, per_page, orphans=0, allow_empty_first_page=True) → <i>paginator</i>
<b>Add/Change Form</b>
<b>get_readonly_fields</b> (self, request, obj=None) → <i>field_names</i> <b>get_prepopulated_fields</b> (self, request, obj=None) → <i>prepopulated_fields_dict</i> <b>get_fieldsets</b> (self, request, obj=None) → <i>fieldsets_tuple</i> <b>get_form</b> (self, request, obj=None, **kwargs) → <i>form_class</i> <b>get_inline_instances</b> (self, request, obj=None) → <i>inline_instances_tuple</i> <b>get_formsets</b> (self, request, obj=None) → <i>yields InlineModelAdmins</i> <b>formfield_for_choice_field</b> (self, db_field, request, **kwargs) → <i>field</i> <b>formfield_for_foreignkey</b> (self, db_field, request, **kwargs) → <i>field</i> <b>formfield_for_manytomany</b> (self, db_field, request, **kwargs) → <i>field</i>

## InlineModelAdmin

<b>Standard subclasses</b>
<b>StackedInline</b> <b>TabularInline</b>
<b>Attributes &amp; methods</b>
<b>model</b> = <i>model</i> (mandatory) <b>verbose_name</b> = <i>string</i> <b>fk_name</b> = <i>field</i> <b>verbose_name_plural</b> = <i>string</i> <b>form</b> = <i>ModelForm</i> <b>can_delete</b> = <i>True</i> <b>formset</b> = <i>BaseInlineFormSet</i> <b>template</b> = <i>template</i> <b>extra</b> = 1 <b>get_formset</b> (self, request, obj=None) → <i>BaseInlineFormSet_class</i> <b>max_num</b> = <i>number</i>

## AdminSite

<b>login_form</b> = <i>form</i> <b>index_template</b> = <i>template</i> <b>login_template</b> = <i>template</i> <b>logout_template</b> = <i>template</i> <b>password_change_template</b> = <i>template</i> <b>password_change_done_template</b> = <i>template</i>
--