

DJANGO CHEAT SHEET

Version 1.5

Form fields

Common kwargs

required=True
label=string
help_text=string
initial=value_or_function
validators=list_of_validators
widget=Widget_class
error_messages=dict
localize=False
(e.g. localize dates, decimals)

Boolean

BooleanField
NullBooleanField

Strings

CharField [min_length=number]
[max_length=number]
SlugField [min_length=number]
[max_length=number]
RegexField regex=*regex*
[min_length=number]
[max_length=number]

Choices

ChoiceField choices=*iterable*
TypedChoiceField choices=*iterable*
[coerce=function]
[empty_value=""]
MultipleChoiceField choices=*iterable*
TypedMultipleChoiceField choices=*iterable*
[coerce=function]
[empty_value=""]
ModelChoiceField queryset=*queryset*
[empty_label="-----"]
[cache_choices=False]
ModelMultipleChoiceField queryset=*queryset*
[cache_choices=False]

error_messages keys

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

Dates & Times

DateField [input_formats=*iterable*]
TimeField [input_formats=*iterable*]
DateTimeField [input_formats=*iterable*]
SplitDateTimeField [input_date_formats=*iterable*]
[input_time_formats=*iterable*]

Numbers

IntegerField [max_value=*int*]
[min_value=*int*]
FloatField [max_value=*float*]
[min_value=*float*]
DecimalField [max_digits=*number*]
[decimal_places=*number*]
[max_value=*decimal*]
[min_value=*decimal*]

Files

FileField [max_length=*number*] (of filename)
[allow_empty_file=False]
ImageField [max_length=*number*] (of filename)
[allow_empty_file=False]
FilePathField [path=*directory_path*]
[recursive=False]
[match=*regex*]
[allow_files=True]
[allow_folders=False]

Internet

EmailField [min_length=*number*]
[max_length=*number*]
URLField [min_length=*number*]
[max_length=*number*]
IPAddressField (IPv4)
GenericIPAddressField (IPv4/IPv6) [protocol="both"|"IPv4"|"IPv6"]
[unpack_ipv4=False]

Misc

ComboField [fields=*tuple*]
MultiValueField [fields=*tuple*]

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

TextInput
PasswordInput [format=*date_format*]
HiddenInput
TextArea

Dates & times

DateInput [format=*date_format*]
DateTimeInput [format=*datetime_format*]
TimeInput [format=*time_format*]
SplitDateTimeWidget [date_format=*date_format*]
[time_format=*time_format*]
SplitHiddenDateTimeWidget
SelectDateWidget [years=*iterable*]

Choices

Select [choices=*iterable*]
NullBooleanSelect [choices=((1, "Unknown"),
(2, "Yes"), (3, "No"))]
RadioSelect [choices=*iterable*]
SelectMultiple [choices=*iterable*]
CheckboxSelectMultiple [choices=*iterable*]
MultipleHiddenInput [choices=*iterable*]

Files

FileInput
ClearableFileInput

Common kwargs

attrs=*dict* eg. {"class": "foo", "rows": "5"}

ModelForms & ModelFormSets

ModelForm Meta attributes

abstract=False
app_label=string
db_table=string
model=*model*
fields=*tuple*
exclude=*tuple*
widgets=*dict*
{ "field": TextInput() }

Factories

modelform_factory(*model*, [form=FormClass],
[fields=*tuple*], [exclude=*tuple*], [widgets=*dict*])
modelformset_factory(*model*, **queryset**=*queryset*,
[formset=BaseModelFormSet], ...)
inlineformset_factory(*parent_model*, *child_model*,
[fk_name=*field*], [can_delete=True],
[formset=BaseInlineFormSet], ...)

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Model fields showing defaults

Common kwargs

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

Numbers

AutoField	primary_key =True (mandatory)
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Booleans

BooleanField
NullBooleanField

Numbers

IntegerField (>= 32 bit)	
PositiveIntegerField (>= 32 bit)	
SmallIntegerField (DB specific size)	
PositiveSmallIntegerField (DB specific size)	
BigIntegerField (64 bit)	
DecimalField	max_digits =number
	decimal_places =number

FloatField

Strings

CharField	max_length =number
TextField	
SlugField	[max_length =50]
CommaSeparatedIntegerField	max_length =number

Strings

CharField	max_length =number
TextField	
SlugField	[max_length =50]
CommaSeparatedIntegerField	max_length =number

Dates & times

DateField	[auto_now =False]
	[auto_now_add =False]
DateTimeField	[auto_now =False]
	[auto_now_add =False]
TimeField	[auto_now =False]
	[auto_now_add =False]

Internet

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

Files

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

Relationships

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

error_messages keys

null
blank
unique
invalid
invalid_choice
invalid_date

on_delete actions

CASCADE	SET_DEFAULT
PROTECT	SET(value_or_function)
SET_NULL	DO_NOTHING

Model Meta attributes

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

Validators

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

QuerySets

Methods that return QuerySets

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

QuerySet & Queries

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

Aggregation functions

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

Other methods

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

ModelAdmin

List columns	Form contents
list_display = <i>field_names</i> list_display_links = <i>field_names</i> list_editable = <i>field_names</i> list_filter = <i>field_names</i> search_fields = <i>field_names</i> date_hierarchy = <i>field_name</i>	filter_horizontal = <i>field_names</i> filter_vertical = <i>field_names</i> radio_fields = <i>dict</i> : { <i>choice_field</i> : HORIZONTAL VERTICAL, ...} fieldsets = <i>dict</i> : ((<i>title</i> None, { [<i>fields</i> : <i>field_names</i> ,] [<i>classes</i> : <i>list</i> ,] [<i>description</i> : <i>string</i> ,] }), ..) save_on_top = <i>False</i>
List actions	Form layout
actions = <i>list</i> actions_on_top = <i>True</i> actions_on_bottom = <i>False</i> actions_selection_counter = <i>True</i> ordering = <i>field_names</i>	add_form_template = <i>template</i> change_form_template = <i>template</i> change_list_template = <i>template</i> delete_confirmation_template = <i>template</i> delete_selected_confirmation_template = <i>template</i> object_history_template = <i>template</i>
List options	Templates
ordering = <i>field_names</i> list_select_related = <i>False</i> list_per_page = 100 list_max_show_all = 200 paginator = <i>paginator_class</i>	add_form_template = <i>template</i> change_form_template = <i>template</i> change_list_template = <i>template</i> delete_confirmation_template = <i>template</i> delete_selected_confirmation_template = <i>template</i> object_history_template = <i>template</i>
Form contents	Queryset
fields = <i>field_names</i> exclude = <i>field_names</i> inlines = <i>inline_classes</i> readonly_fields = <i>field_names</i> raw_id_fields = <i>field_names</i> prepopulated_fields = <i>dict</i> { <i>slug</i> : (<i>'title'</i> ,), ...} form = <i>form_class</i> formfield_overrides = <i>dict</i> save_as = <i>False</i>	queryset (self, request) → <i>queryset</i>

Saving
save_model (self, request, obj, form, is_change) – must call obj.save() delete_model (self, request, obj) – must call obj.delete() save_formset (self, request, form, formset, is_change) – must call formset.save() save_related (self, request, form, formsets, is_change) – must call save() for each formset

Permissions
has_add_permission (self, request) → <i>boolean</i> has_change_permission (self, request, obj=None) → <i>boolean</i> has_delete_permission (self, request, obj=None) → <i>boolean</i>

URLs
get_urls (self) → <i>urlpatterns</i>

Change List
get_ordering (self, request) → <i>field_names</i> get_list_display (self, request) → <i>field_names</i> get_list_display_links (self, request, list_display) → <i>field_names</i> get_list_filter (self, request) → <i>field_names</i> get_changelist (self, request, **kwargs) → <i>ChangeList_class</i> get_changelist_form (self, request, **kwargs) → <i>ModelForm_class</i> get_changelist_formset (self, request, **kwargs) → <i>ModelFormSet_class</i> get_paginator (self, request, queryset, per_page, orphans=0, allow_empty_first_page=True) → <i>paginator</i>

Add/Change Form
get_readonly_fields (self, request, obj=None) → <i>field_names</i> get_prepopulated_fields (self, request, obj=None) → <i>prepopulated_fields_dict</i> get_fieldsets (self, request, obj=None) → <i>fieldsets_tuple</i> get_form (self, request, obj=None, **kwargs) → <i>form_class</i> get_inline_instances (self, request, obj=None) → <i>inline_instances_tuple</i> get_formsets (self, request, obj=None) → <i>yields InlineModelAdmins</i> formfield_for_choice_field (self, db_field, request, **kwargs) → <i>field</i> formfield_for_foreignkey (self, db_field, request, **kwargs) → <i>field</i> formfield_for_manytomany (self, db_field, request, **kwargs) → <i>field</i>

InlineModelAdmin

Standard subclasses

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

AdminSite

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

Mercurytide is built upon a foundation of great people. We love all things digital, and our clients benefit from our full-service delivery - from strategy and thorough production to ongoing support. In order to keep up with the demand for our expert services, Mercurytide is growing.

You will join a culture of exceptional people, who pride themselves on being up to speed with the latest technologies. Our forward-thinking staff have created bespoke solutions for a wide variety of clients, from local retailers to global market leaders. We champion the strengths of our staff and fuel progress by learning from each other.

Life at Mercurytide is never dull; we have a busy calendar of work, plus social events for our staff. If you are talented and think that your skill set can benefit our clients, then drop us a line today.

Don't forget be our friend on Facebook and link up with us on LinkedIn.

Talented developers apply at
www.mercurytide.co.uk/careers