mercurytide

DJANGO CHEAT SHEET

Version 1.

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

Template tags

Tompiato tago			
Built in	comments library		
{% autoescape on off %} — {% endautoescape %} {% block name %} — {% endblock %} {% comment %} — {% endcomment %} {% csrf_token %} {% cycle "even" "odd" [as name [silent]] %} {% cycle name %} {% debug %}	{% comment_form_target %} {% get_comment_count for var as name %} {% get_comment_form for var as name %} {% get_comment_list for var as name %} {% get_comment_permalink comment [format_string] %} {% render_comment_form for var %} {% render_comment_list for var %}		
{% extends template %}	flatpages library		
{% filter filter1 filter2 %} {% firstof var1 var2 default %}	{% get_flatpages [url_prefix] as name %}		
Does not auto-escape	i18n library		
{% for var[] in list %} — [{% empty %}] — {% endfor %} forloop.counter forloop.counter0 forloop.revcounter forloop.revcounter0 forloop.first forloop.parentloop forloop.last {% if expression %} — [{% elif expression %}] — [{% else %}] — {% endif %} Comparisons: ==! = < <= >> = in not in Boolean: and or not {% ifchanged [var1] [var2] %} — {% endifchanged %} {% include template [with name=value [only]] %} {% load library %}	{% blocktrans [context context_name] [with name = value] %} — {% endblocktrans %} {% blocktrans count name = value [context, with etc.] %} — {% plural %} — {% endblocktrans%} {% get_available_languages as LANGUAGES %} {% get_current_language as LANGUAGE_CODE %} {% get_current_language_bidi as LANGUAGE_BIDI %} {% get_language_info for "en" as lang %} lang.code lang.name lang.name_local lang.bidi {% get_language_info for list_of_codes as lang %} {% trans string [context context_name] [as name] [noop] ?		
{% load tag from library %} {% now [timeformat] %}	I10n library		
{% regroup list by attr as name %}	{% localize on off %} — {% endlocalize %}		
$ \{\% \ spaceless \ \%\} \longrightarrow \{\% \ endspaceless \ \%\} $	static library		
{% ssi path [parsed] %} {% templatetag openblock %} open closeblock variable brace comment	{% get_media_prefix [as name] %} {% get_static_prefix [as name] %} {% static path [as name] %}		
{% url "[app:]viewname" [arg] [kwarg=value] [as name] %} {% verbatim [name] %} — {% endverbatim [name] %}	staticfiles library		
{% widthratio value maxvalue maxwidth %}	{% static path [as name] %}		
= value / maxvalue * maxwidth	tz library		
{% with name=value[]%} — {% endwith %}	{% get_current_timezone [as TIME_ZONE] %} {% localtime on off %} — {% endlocaltime %}		
cache library	{% timezone time_zone_name %} — {% endtimezone %}		
$\label{eq:cache_seconds} \textit{name} \; [\textit{vary_by} \ldots] \; \% \} \; \; \{\% \; \text{endcache} \; \% \}$	webdesign library		

{% lorem [number] [w | p | b] [random] %}

Filters

Text formatting	Dates & times	Escaping	humanize <i>library</i>
lower	date: format	safe	apnumber
upper	time:format	safeseg	intcomma
title	timesince[: datetime]	escape	intword
capfirst	timeuntil[: datetime]	force escape	naturalday[: format]
slugify	1 1	escapeis	naturaltime
ljust: width	Lists	addslashes	ordinal
rjust: width	length		
center: width	length_is:length	fix_ampersands	i18n <i>library</i>
wordwrap: width	first	iriencode	language name
•	last	urlencode[:safe_chars]	language name local
wordcount	random		bidi
striptags	join: string	General	Diui
removetags: "p br"	slice : "1:9"	default: value	l10n <i>library</i>
Case sensitive.	make list	default if none: value	localize
cut: substring	unordered list	dictsort: key	unlocalize
linebreaks	-	dictsortreversed: key	ulliocalize
linebreaksbr	Numbers	pprint	tz library
linenumbers	add: number		localtime
phone2numeric	divisibleby: number	stringformat: format	
truncatechars: count	filesizeformat	yesno [: "yes,no[,none]"]	timezone: tz_name
truncatewords: count	floatformat[: decimal places]		utc
truncatewords html: count	get digit: position		
urlize	position $1 = 1$'s, $2 = 10$'s		
urlizetrunc: length	pluralize[: "v,ies"]		
uniteditallo. Terrigari	prur unizo[. y,100]		

Template date formats

0 (Sun) to 6 (Sat)

Yea	r	AM	& PM	Lo	calized		
y Y	13 2013	a A	a.m. or p.m. AM or PM	SH	TETIME_FORMAT Ort_datetime_format	Long date & time Short date & time	
Mon	Month		Hour		TE_FORMAT	Long date	
F E	January (localised full date form)	H G	00 to 23 0 to 23		ORT_DATE_FORMAT 1e_format	Short date Time	
М	Jan	h	01 to 12	Tir	nezone		
b	jan	g	1 to 12	T	TZ code: EST, CET		
N	,		Minutes		e TZ name: GMT, -500, US/Eastern		
n	1 to 12	i	00 to 59	0	TZ offset: +0200		
m			Seconds		Z TZ offset (sec): -43200 to 43200		
•••	011012	S	00 to 59	Mi	sc		
Day	1	μs		I	DST in effect: 1 or 0		
d	01 to 31	u	000000 to 999999	L	Is leap year: True or False		
i	1 to 31 Time			z Day of year: 0 to 365			
S	suffix: st, nd, rd or th	f P	1, 1:30 1 a.m. 1 a.m. 1:30 p.m.,	t W	Days in month: 28 to 31 Week number: 1 to 53		
Day	of week		midnight , noon	0	Week-numbering year: 2013		
ı	Friday	Sta	ndards				
D	Fri	C	ISO 8601: 2013-03-28T09:47:23.538501+02:00				

RFC 2822: Thu, 21 Dec 2000 16:01:07 +0200

Unix time: 1364471243

DIANGO CHEAT SHEET

Version 1.5

[input formats=iterable]

[input formats=iterable]

[input formats=iterable]

[max value=int]

[min value=int]

[max value=float]

[min value=float]

[max digits=number]

[max value=decimal] [min value=decimal]

[decimal places=number]

[allow empty file=False]

[allow empty file=False]

[path=directory path]

[recursive=False]

[allow files=True]

[allow folders=False]

[min length=number]

[max length=number]

[min length=number]

[max length=number]

[unpack_ipv4=False]

[protocol="both" | "IPv4" | "IPv6"]

invalid list

[match=regex]

[max length=number] (of filename)

[max length=number] (of filename)

[input date formats=iterable]

[input time formats=iterable]

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

[max length=number] SlugField [min length=number] [max length=number] RegexField regex=regex [min length=number] [max length=number]

[min length=number]

choices=iterable

Choices ChoiceField

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

error messages keys required min length max length invalid choice min value

invalid (int, email, etc.) invalid date invalid time

queryset=queryset

[cache choices=False]

max value max digits max decimal places max whole digits

missing (file) empty (file) invalid image invalid pk value

Dates & Times

DateField

TimeField

Numbers

IntegerField

FloatField

Files

FileField

ImageField

FilePathField

Internet

EmailField

URLField

(IPv4/IPv6)

ComboField

MultiValueField

Misc

IPAddressField (IPv4)

GenericIPAddressField

DecimalField

DateTimeField

SplitDateTimeField

[fields=tuple]

[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 [format=date format] **PasswordInput** 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]

[choices=iterable]

Files

FileInput ClearableFileInput

MultipleHiddenInput

Common kwargs

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

ModelForms & ModelFormSets

ModelForm Meta attributes abstract=False exclude=tuple app label=string

fields=tuple

widgets=dict { "field": TextInput() } db table=string model=model

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 sh	owing defaults	Internet	
Model Helds SH	owing deladits	EmailField	[max_length=75]
Common kwargs		URLField	[max_length=200]
null=False blank=False choices=iterable	lelp_text = <i>string</i> I rimary_key =False I nique= False	IPAddressField (IPv4) GenericIPAddressField	[protocol="both" "IPv4" "IPv6"] [unpack_ipv4=False]
db_column=name	unique_for_date=date_field_name	Files	
db_index=False default=value_or_function editable=True error_messages=dict	unique_for_month=date_field_name unique_for_year=date_field_name verbose_name=string validators=iterable	FileField ImageField	upload_to=path_or_function [storage=storage] [max_length=number] upload_to=path_or_function
Numbers			[storage=storage]
AutoField Booleans	primary_key =True (mandatory)		[height_field=field_name] [width_field=field_name]
BooleanField NullBooleanField		FilePathField	[max_length=number] path=path [match=regex]
Numbers IntegerField (>= 32 bit) PositiveIntegerField (>= 32 bit) SmallIntegerField (DB specific siz	e)		[recursive=False] [allow_files=True] [allow_folders=False] [max_length=100]
PositiveSmallIntegerField (DB s	pecific size)	Relationships	
BigIntegerField (64 bit) DecimalField FloatField	max_digits=number decimal_places=number	ForeignKey	model (or "self") [limit_choices_to=dict_or_Q] [related_name=string] [to_field=field_name]
Strings			[on_delete=action]
CharField TextField	max_length=number	OneToOneField	model (or "self") [limit_choices_to=dict_or_Q] [related_name_atriag]
SlugField CommaSeparatedIntegerField	[max_length=50] max_length=number	ManyToManyField	<pre>[related_name=string] [to_field=field_name] [on_delete=action] [parent_link=False]</pre>
Strings			[parent_nnk=raise]
CharField	max_length=number	error_messages keys	
TextField SlugField	[max length=50]	null	
CommaSeparatedIntegerField	max_length=number	blank unique	
Dates & times		invalid	
DateField	[auto_now=False] [auto_now_add=False]	invalid_choice invalid_date	
DateTimeField	[auto_now=False]	on_delete actions	
TimeField	[auto_now_add=False] [auto_now=False]	CASCADE PROTECT	SET_DEFAULT SET(value or function)

SET NULL

[auto now add=False]

DO NOTHING

Model Meta attributes abstract=False ordering=tuple permissions=tuple app_label=string 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** ${\bf MaxLengthValidator}(\textit{length})$ MaxValueValidator(value)

 ${\bf MinValueValidator}(\textit{value})$

validate_ipv4_address validate_ipv6_address

validate_ipv46_address

validate comma separated integer list

 $aggregate(aggregate_query) \rightarrow dict$

in_bulk(ids) → instances dict, keyed by id

bulk_create(instances, [batch_size=number])

update(field=value, ...)

 $iterator() \rightarrow iterator$

delete()

QuerySets

Other methods
get(query) → instance

exists() → boolean

 $count() \rightarrow number$

 $create(query) \rightarrow instance$

 $get_or_create(query) \rightarrow (instance\ created)$

 $earliest([field_name]) \rightarrow instance$

 $latest([field_name]) \rightarrow instance$

MinLengthValidator(length)

RegexValidator([regex=""], [message=

"Enter a valid value"], [code="invalid"])

validate email

validate_slug validate_url

Methods that return QuerySets	QuerySet & Queries		
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",	exact=value None iexact=value contains=string icontains=string startswith=string istartswith=string endswith=string iendswith=string regex=pattern iregex=pattern gt=value gte=value	It=value Ite=value in=iterable queryset range=(start, end) year=year month=1-12 day=1-31 week_day= 1 (Sun)-7 (Sat) isnull=boolean search= mysql fulltext query	
<pre>select_related([field,]) prefetch_related([field,]) defer(field,) only(field,) using(database_alias) select_for_update([nowait=False]) extra([select=], [select_params=], [tables=],</pre>	Aggregation functions Count(field, [distinct=False]) Sum(field) Max(field) Min(field) Avg(field) StdDev(field, [sample=False]) Variance(field, [sample=False])		

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ModelAdmin

List columns

list_display = field_names list_display_links = field_names list_editable = field_names list_filter = field_names search_fields = field_names date_hierarchy = field_name

List actions

actions = list
actions_on_top = True
actions_on_bottom = False
actions_selection_counter = True
ordering = field_names

List options

ordering = field_names list_select_related = False list_per_page = 100 list_max_show_all = 200 paginator = paginator class

Form contents

fields = field_names
exclude = field_names
inlines = inline_classes
readonly_fields = field_names
raw_id_fields = field_names
prepopulated_fields = dict
{'slug': ('title',), ...}
form = form_class
formfield_overrides = dict
save_as = False

Form contents

Form layout

add_form_template = template
change_form_template = template
change_list_template = template
delete_confirmation_template = template
delete_selected_confirmation_template = template
object_history_template = template

Templates

add_form_template = template
change_form_template = template
change_list_template = template
delete_confirmation_template = template
delete_selected_confirmation_template = template
object_history_template = template

Queryset

queryset(self, request) → queryset

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

```
\label{local_norm} \begin{split} &\textbf{has\_add\_permission}(\text{self, request}) \rightarrow boolean \\ &\textbf{has\_change\_permission}(\text{self, request, obj} = \text{None}) \rightarrow boolean \\ &\textbf{has\_delete\_permission}(\text{self, request, obj} = \text{None}) \rightarrow boolean \end{split}
```

URLs

get urls(self) → urlpatterns

Change List

```
get_ordering(self, request) → field_names
get_list_display(self, request) → field_names
get_list_display_links(self, request, list_display) → field_names
get_list_filter(self, request) → field_names
get_changelist(self, request, **kwargs) → ChangeList_class
get_changelist_form(self, request, **kwargs) → ModelForm_class
get_changelist_formset(self, request, **kwargs) → ModelFormSet_class
get_paginator(self, request, queryset, per_page, orphans=0,
allow empty first page=True) → paginator
```

Add/Change Form

 $\begin{array}{l} \textbf{get_readonly_fields}(\textbf{self}, \textbf{request}, \textbf{obj} = \textbf{None}) \rightarrow \textit{field_names} \\ \textbf{get_prepopulated_fields}(\textbf{self}, \textbf{request}, \textbf{obj} = \textbf{None}) \rightarrow \textit{prepopulated_fields_dict} \\ \textbf{get_fieldsets}(\textbf{self}, \textbf{request}, \textbf{obj} = \textbf{None}) \rightarrow \textit{fieldsets_tuple} \\ \textbf{get_form}(\textbf{self}, \textbf{request}, \textbf{obj} = \textbf{None}) \rightarrow \textit{fieldsets_tuple} \\ \textbf{get_inline_instances}(\textbf{self}, \textbf{request}, \textbf{obj} = \textbf{None}) \rightarrow \textit{inline_instances_tuple} \\ \textbf{get_formsets}(\textbf{self}, \textbf{request}, \textbf{obj} = \textbf{None}) \rightarrow \textit{yields InlineModelAdmins} \\ \textbf{formfield_for_choice_field}(\textbf{self}, \textbf{db_field}, \textbf{request}, **kwargs) \rightarrow \textit{field} \\ \textbf{formfield_for_foreignkey}(\textbf{self}, \textbf{db_field}, \textbf{request}, **kwargs) \rightarrow \textit{field} \\ \textbf{formfield for manytomany}(\textbf{self}, \textbf{db} \ \textit{field}, \textbf{request}, **kwargs) \rightarrow \textit{field} \\ \end{aligned}$

InlineModelAdmin

Standard subclasses

StackedInline TabularInline

Attributes & methods

```
model = model (mandatory)
fk_name = field
form = ModelForm
formset = BaseInlineFormSet
extra = 1
max_num = number
```

```
verbose_name = string
verbose_name_plural = string
can_delete = True
template = template
get_formset(self, request, obj=None) →
BaselnlineFormSet_class
```

AdminSite

```
login_form = form
index_template = template
login_template = template
logout_template = template
password_change_template = template
password_change_done_template = template
```

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 Linkedln.

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