

mercurytide

DJANGO CHEAT SHEET

Version 1.5

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Template tags	
Built in	comments library
<pre>{% autoescape on   off %} — {% endautoescape %} {% block name %} — {% endblock %} {% comment %} — {% endcomment %} {% csrf_token %} {% cycle "even" "odd" [as name [silent]] %} {% cycle name %} {% debug %} {% extends template %} {% filter filter1   filter2 %} {% firstof var1 var2 ... default %} Does not auto-escape {% 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: == != &lt; &lt;= &gt; &gt;= in not in Boolean: and or not {% ifchanged [var1] [var2 ...] %} — {% endifchanged %} {% include template [with name=value ... [only]] %} {% load library ... %} {% load tag ... from library %} {% now [timeformat] %} {% regroup list by attr as name %} {% spaceless %} — {% endspaceless %} {% ssi path [parsed] %} {% templatetag openblock %}     open   close...block   variable   brace   comment {% url "[app:]viewname" [arg ...] [kwarg=value ...] [as name] %} {% verbatim [name] %} — {% endverbatim [name] %} {% widthratio value maxvalue maxwidth %}     = value / maxvalue * maxwidth {% with name=value[...] %} — {% endwith %}</pre>	<pre>{% 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 %}</pre>
flatpages library	
<pre>{% get_flatpages [url_prefix] as name %}</pre>	
i18n library	
<pre>{% 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] %}</pre>	
l10n library	
<pre>{% localize on   off %} — {% endlocalize %}</pre>	
static library	
<pre>{% get_media_prefix [as name] %} {% get_static_prefix [as name] %} {% static path [as name] %}</pre>	
staticfiles library	
<pre>{% static path [as name] %}</pre>	
tz library	
<pre>{% get_current_timezone [as TIME_ZONE] %} {% localtime on   off %} — {% endlocaltime %} {% timezone time_zone_name %} — {% endtimezone %}</pre>	
webdesign library	
<pre>{% lorem [number] [w   p   b] [random] %}</pre>	

Filters			
Text formatting	Dates & times	Escaping	humanize library
lower   upper   title   capfirst   slugify   ljust: width   rjust: width   center: width   wordwrap: width   wordcount   striptags   removetags: "p br" Case sensitive.   cut: substring   linebreaks   linebreaksbr   linenumbers   phone2numeric   truncatechars: count   truncatewords: count   truncatewords_html: count   urlize   urlizetrunc: length	date: format   time: format   timesince[: datetime]   timeuntil[: datetime]  Lists   length   length_is: length   first   last   random   join: string   slice: "1:9"   make_list   unordered_list  Numbers   add: number   divisibleby: number   filesizeformat   floatformat[: decimal_places]   get_digit: position position 1 = 1's, 2 = 10's   pluralize[: "y,ies"]	safe   safeseq   escape   force_escape   escapejs   addslashes   fix_ampersands   iriencode   urlencode[: safe_chars]  General   default: value   default_if_none: value   dictsort: key   dictsortreversed: key   pprint   stringformat: format   yesno[: "yes,no[,none]"]	apnumber   intcomma   intword   naturalday[: format]   naturaltime   ordinal  i18n library   language_name   language_name_local   bidi  l10n library   localize   unlocalize  tz library   localtime   timezone: tz_name   utc

Template date formats			
Year		AM & PM	Localized
y	13	a	a.m. or p.m.
Y	2013	A	AM or PM
Month		Hour	
F	January	H	00 to 23
E	(localised full date form)	G	0 to 23
M	Jan	h	01 to 12
b	jan	g	1 to 12
		Minutes	
		i	00 to 59
		Seconds	
		s	00 to 59
Day		µs	
		u	000000 to 999999
		Time	
		f	1, 1:30 1 a.m.
		P	1 a.m. 1:30 p.m., midnight , noon
Day of week		Standards	
		c	ISO 8601: 2013-03-28T09:47:23.538501+02:00
		r	RFC 2822: Thu, 21 Dec 2000 16:01:07 +0200
		U	Unix time: 1364471243

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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]		
Boolean		Numbers		
<b>BooleanField</b> <b>NullBooleanField</b>		<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]		
Strings		Files		
<b>CharField</b> [min_length=number] [max_length=number]  <b>SlugField</b> [min_length=number] [max_length=number]  <b>RegexField</b> regex=regex [min_length=number] [max_length=number]		<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]		
Choices		Internet		
<b>ChoiceField</b> choices=iterable <b>TypedChoiceField</b> choices=iterable [coerce=function] [empty_value=""]  <b>MultipleChoiceField</b> choices=iterable <b>TypedMultipleChoiceField</b> choices=iterable [coerce=function] [empty_value=""]  <b>ModelChoiceField</b> queryset=queryset [empty_label="-----"] [cache_choices=False]  <b>ModelMultipleChoiceField</b> queryset=queryset [cache_choices=False]		<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> [protocol="both"   "IPv4"   "IPv6"] (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		Formsets
<b>class Media:</b> <b>css</b> = {"all"   screen   print": (filenames), ... } <b>js</b> = (filenames) [extend = True]		<i>FormSetClass</i> = <b>formset_factory</b> (form, [extra=1.] [max_num=None], [can_order=False], [can_delete=False], [formset=BaseFormSet])  <i>FormSetClass</i> (data, [files.] [initial=list.] [prefix=string])
Validators		Formset attributes
<b>MaxLengthValidator</b> (length) <b>MinLengthValidator</b> (length) <b>validate_email</b> <b>validate_slug</b> <b>validate_url</b> <b>RegexValidator</b> ([regex=" "], [message="Enter a valid value"], [code="invalid"]) <b>MaxValueValidator</b> (value) <b>MinValueValidator</b> (value) <b>validate_ipv4_address</b> <b>validate_ipv6_address</b> <b>validate_ipv46_address</b> <b>validate_comma_separated_integer_list</b>		<b>formset.empty_form</b> <b>formset.management_form</b> <b>formset.ordered_forms</b>
		Form attributes
		<b>form.ORDER</b> <b>form.DELETE</b>
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		Files
<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]		<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> = <i>iterable</i>	<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> = <i>iterable</i>

### 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

<b>FloatField</b>	
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### Strings

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

### Dates & times

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

### Internet

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

### Files

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

### Relationships

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

### 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> ([ <b>regex</b> ="", [ <b>message</b> = "Enter a valid value"], [ <b>code</b> ="invalid"]])	<b>validate_comma_separated_integer_list</b>

## QuerySets

Methods that return QuerySets	QuerySet & Queries	
<b>all</b> ()	<b>exact</b> =value   None	<b>lt</b> =value
<b>none</b> ()	<b>ieexact</b> =value	<b>lte</b> =value
<b>filter</b> (query)	<b>contains</b> =string	<b>in</b> = <i>iterable</i>   <i>queryset</i>
<b>exclude</b> (query)	<b>icontains</b> =string	<b>range</b> =(start, end)
<b>order_by</b> (field, ...)	<b>startswith</b> =string	<b>year</b> =year
<b>reverse</b> ()	<b>istartswith</b> =string	<b>month</b> =1 – 12
<b>annotate</b> (aggregate_query)	<b>endswith</b> =string	<b>day</b> =1 – 31
<b>distinct</b> ([field, ...])	<b>iendswith</b> =string	<b>week_day</b> = 1 (Sun) – 7 (Sat)
<b>values</b> (field, ...)	<b>regex</b> =pattern	<b>isnull</b> =boolean
<b>values_list</b> (field, ..., [ <b>flat</b> =False])	<b>iregex</b> =pattern	<b>search</b> = mysql fulltext query
<b>dates</b> (field, kind="year   month   day", [ <b>order</b> ="ASC   DESC"])	<b>gt</b> =value	
<b>select_related</b> ([field, ...])	<b>gte</b> =value	
<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> ([ <b>select</b> =...], [ <b>select_params</b> =...], [ <b>tables</b> =...], [ <b>where</b> =...], [ <b>params</b> =...], [ <b>order_by</b> =...])		
	<b>Aggregation functions</b>	
	<b>Count</b> (field, [ <b>distinct</b> =False])	
	<b>Sum</b> (field)	
	<b>Max</b> (field)	
	<b>Min</b> (field)	
	<b>Avg</b> (field)	
	<b>StdDev</b> (field, [ <b>sample</b> =False])	
	<b>Variance</b> (field, [ <b>sample</b> =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, [ <b>batch_size</b> =number])
<b>exists</b> () → boolean	<b>iterator</b> () → iterator
<b>count</b> () → number	

## ModelAdmin

List columns	Form contents
<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> : {'choice_field': HORIZONTAL   VERTICAL, ...} <b>fieldsets</b> = <i>dict</i> : ( (title   None, { 'fields': <i>field_names</i> , 'classes': <i>list</i> , 'description': <i>string</i> , }), .. ) <b>save_on_top</b> = <i>False</i>
List actions	Form layout
<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>
List options	Templates
<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>
Form contents	Queryset
<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> {'slug': ('title',), ...} <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>

**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) → *boolean*  
**has\_change\_permission**(self, request, obj=None) → *boolean*  
**has\_delete\_permission**(self, request, obj=None) → *boolean*

### URLs

**get\_urls**(self) → *urlpatterns*

Change List
<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>
Add/Change Form
<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

### 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) → *BaseInlineFormSet\_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 LinkedIn.

**Talented developers apply at**  
[www.mercurytide.co.uk/careers](http://www.mercurytide.co.uk/careers)

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