제너릭 뷰

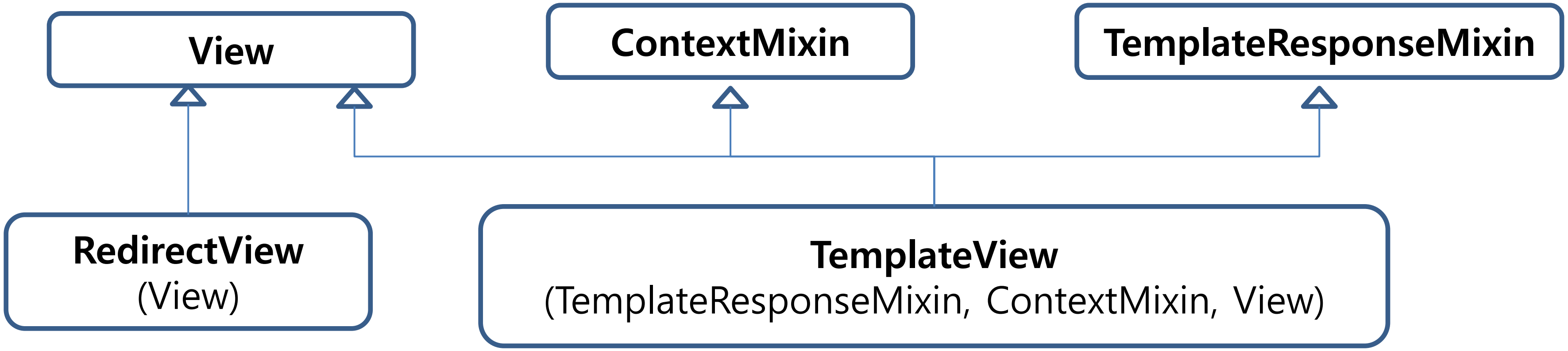
제너릭 뷰

❖ 제너릭 뷰

- 클래스 기반 뷰 제작시 기본 클래스 제공
- 제너릭 뷰 소스
  - https://github.com/django/django/tree/master/django/views/generic

기반 제너릭 뷰

❖ **base.py**



기반 제너릭 뷰

- **ContextMixin:**
  - 필드
    - extra_context = None
  - 메서드
    - get_context_data(self, **kwargs):

- **class View:**
  - 필드
    - http_method_names = ['get', 'post', 'put', 'patch', 'delete', 'head', 'options', 'trace']
  - 메서드
    - __init__(self, **kwargs)
    - **as_view(cls, **initkwargs)**
    - setup(self, request, *args, **kwargs)
    - **dispatch(self, request, *args, **kwargs)**
    - http_method_not_allowed(self, request, *args, **kwargs)
    - options(self, request, *args, **kwargs)
    - _allowed_methods(self)

기반 제너릭 뷰

- **TemplateResponseMixin:**
  - 필드
    - `template_name = None`
    - `template_engine = None`
    - `response_class = TemplateResponse`
    - `content_type = None`
  - 메서드
    - **`render_to_response(self, context, **response_kwargs)`**
    - `get_template_names(self)`

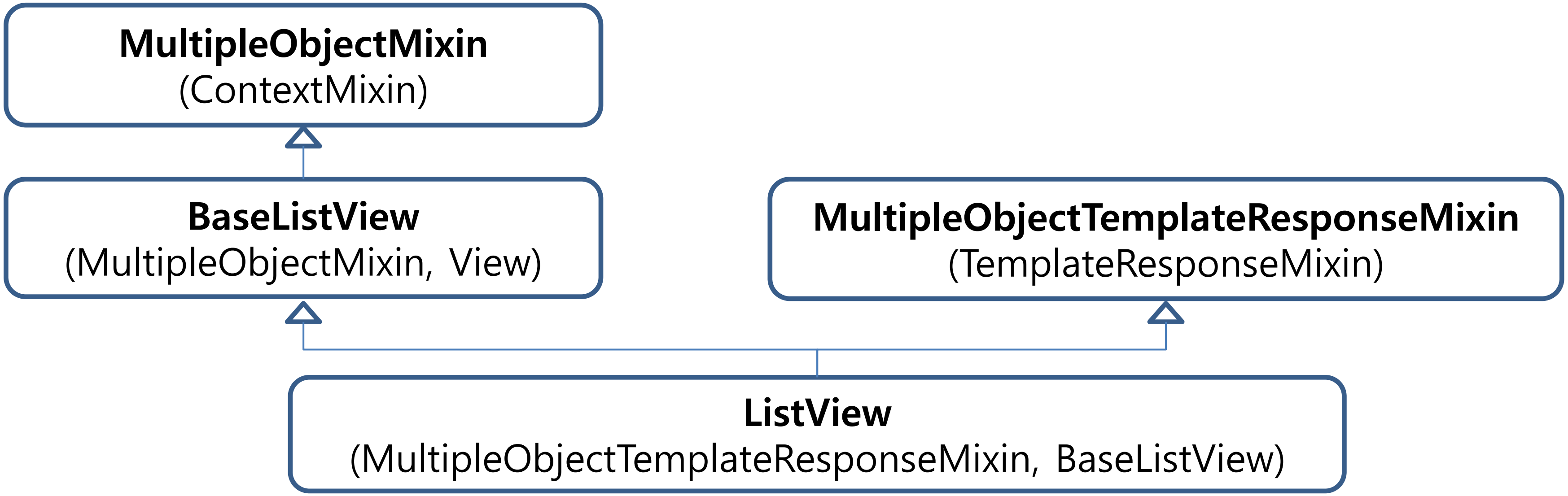
- **class TemplateView(TemplateResponseMixin, ContextMixin, View):**
  - 메서드
    - `get(self, request, *args, **kwargs)`

기반 제너릭 뷰

- **RedirectView(View):**
  - 필드
    - permanent = False
    - url = None
    - pattern_name = None
    - query_string = False
  - 메서드
    - get_redirect_url(self, *args, **kwargs):
    - get(self, request, *args, **kwargs):
    - head(self, request, *args, **kwargs):
    - post(self, request, *args, **kwargs):
    - options(self, request, *args, **kwargs):
    - delete(self, request, *args, **kwargs):
    - put(self, request, *args, **kwargs):
    - patch(self, request, *args, **kwargs):

목록 제네릭 뷰

- ❖ **list.py**



MultipleObjectMixin
(ContextMixin)

BaseListView
(MultipleObjectMixin, View)

MultipleObjectTemplateResponseMixin
(TemplateResponseMixin)

ListView
(MultipleObjectTemplateResponseMixin, BaseListView)

목록 제너릭 뷰

❖ MultipleObjectMixin(ContextMixin):

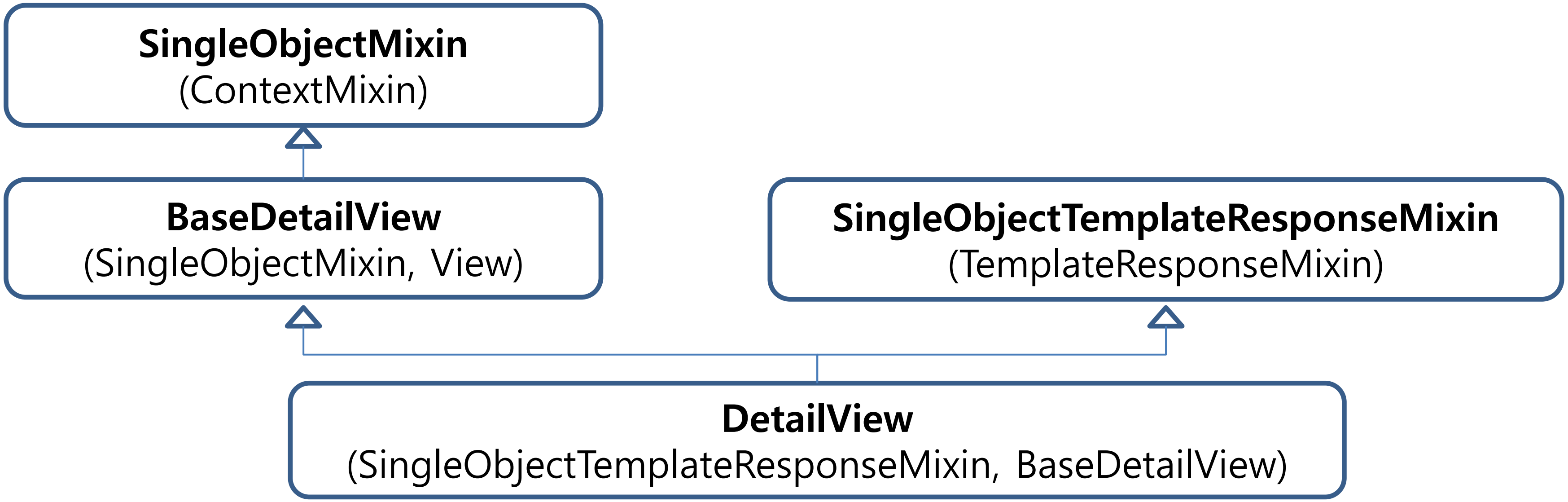
- 필드
  - `allow_empty = True`
  - `queryset = None`
  - `model = None`
  - `paginate_by = None`
  - `paginate_orphans = 0`
  - `context_object_name = None`
  - `paginator_class = Paginator`
  - `page_kwarg = 'page'`
  - `ordering = None`
- 메서드
  - `get_queryset(self):`
  - `get_ordering(self):`
  - `paginate_queryset(self, queryset, page_size):`
  - `get_paginate_by(self, queryset):`
  - `get_paginator(self, queryset, per_page, orphans=0, allow_empty_first_page=True, **kwargs):`
  - `get_paginate_orphans(self):`
  - `get_allow_empty(self):`
  - `get_context_object_name(self, object_list):`
  - `get_context_data(self, *, object_list=None, **kwargs):`

목록 제너릭 뷰

- **ListView(MultipleObjectTemplateResponseMixin, BaseListView)**
  - 메서드 호출 순서
    - `dispatch(request, *args, **kwargs)`
    - `get(request, *args, **kwargs)`
      - `self.object_list = self.get_queryset()`
      - `self.get_paginate_by(self.object_list)`
      - `context = self.get_context_data()`
      - `return self.render_to_response(context)`

상세보기 제너릭 뷰

❖ **detail.py**


SingleObjectMixin
(ContextMixin)

BaseDetailView
(SingleObjectMixin, View)

SingleObjectTemplateResponseMixin
(TemplateResponseMixin)

DetailView
(SingleObjectTemplateResponseMixin, BaseDetailView)

상세보기 제너릭 뷰

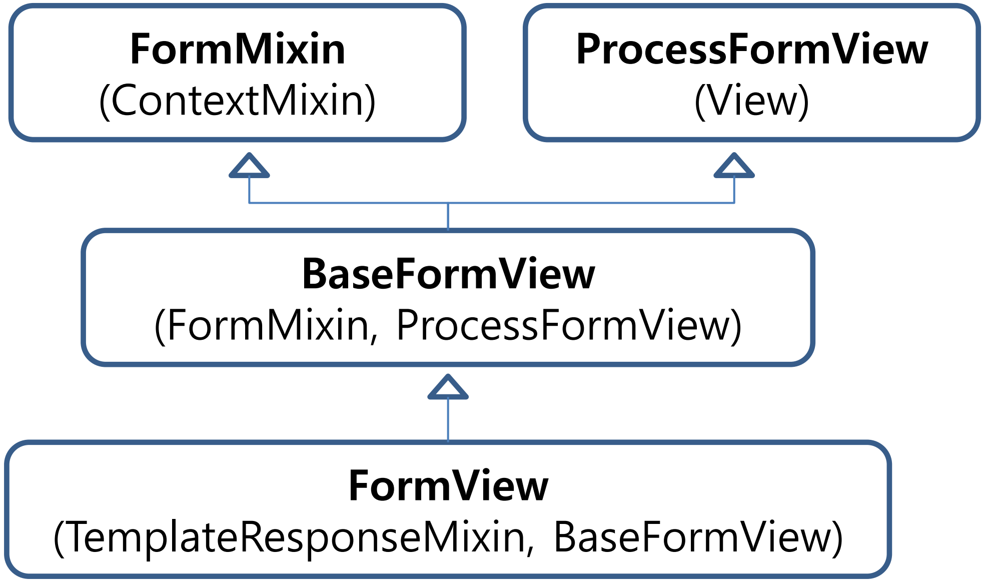
- **SingleObjectMixin(ContextMixin)**
  - 필드
    - `model = None`
    - `queryset = None`
    - `slug_field = 'slug'`
    - `context_object_name = None`
    - `slug_url_kwarg = 'slug'`
    - `pk_url_kwarg = 'pk'`
    - `query_pk_and_slug = False`
  - 메서드
    - `get_object(self, queryset=None):`
    - `get_queryset(self):`
    - `get_slug_field(self):`
    - `get_context_object_name(self, obj):`
    - `def get_context_data(self, **kwargs):`

상세보기 제너릭 뷰

- **DetailView(SingleObjectTemplateResponseMixin, BaseDetailView)**
  - 메서드 호출 순서
    - `dispatch(request, *args, **kwargs)`
    - `get(request, *args, **kwargs)`
      - `context = self.get_context_data(object=self.object)`
      - `return self.render_to_response(context)`

단일 항목 수정 제너릭 뷰

❖ **edit.py(FormView)**


FormMixin
(ContextMixin)

ProcessFormView
(View)

BaseFormView
(FormMixin, ProcessFormView)

FormView
(TemplateResponseMixin, BaseFormView)

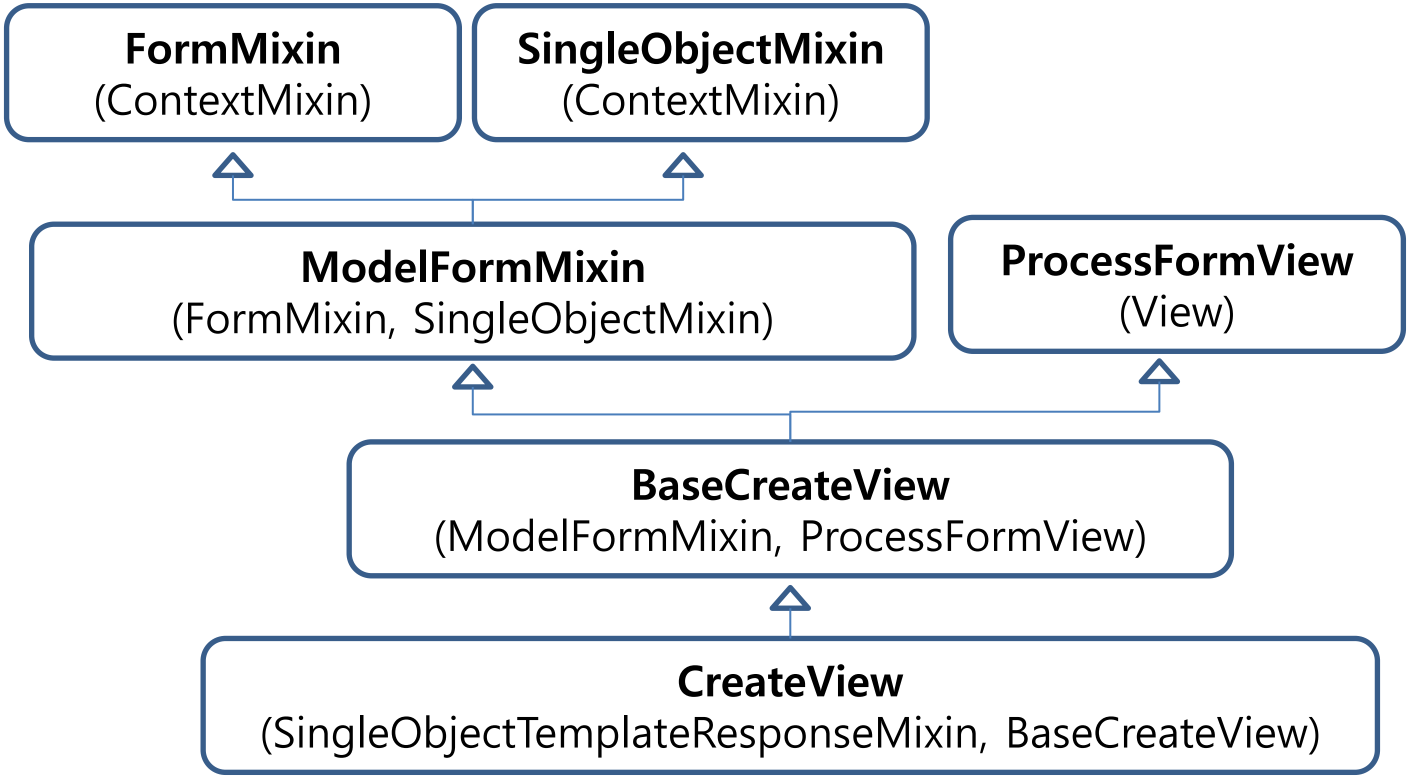
단일 항목 수정 제너릭 뷰

- **FormView(TemplateResponseMixin, BaseFormView)**
  - 메서드 호출 순서
    - dispatch(request, *args, **kwargs)
    - get(request, *args, **kwargs)
      - return self.render_to_response(self.get_context_data())
    - post(request, *args, **kwargs):
      - form = self.get_form()
      - if form.is_valid():

        ```
            form_valid(form)
            return HttpResponseRedirect(self.get_success_url())
        else:
            self.form_invalid(form)
               return self.render_to_response(
                                self.get_context_data(form=form))
        ```

단일 항목 수정 제너릭 뷰

❖ **edit.py(CreateView)**



단일 항목 수정 제네릭 뷰

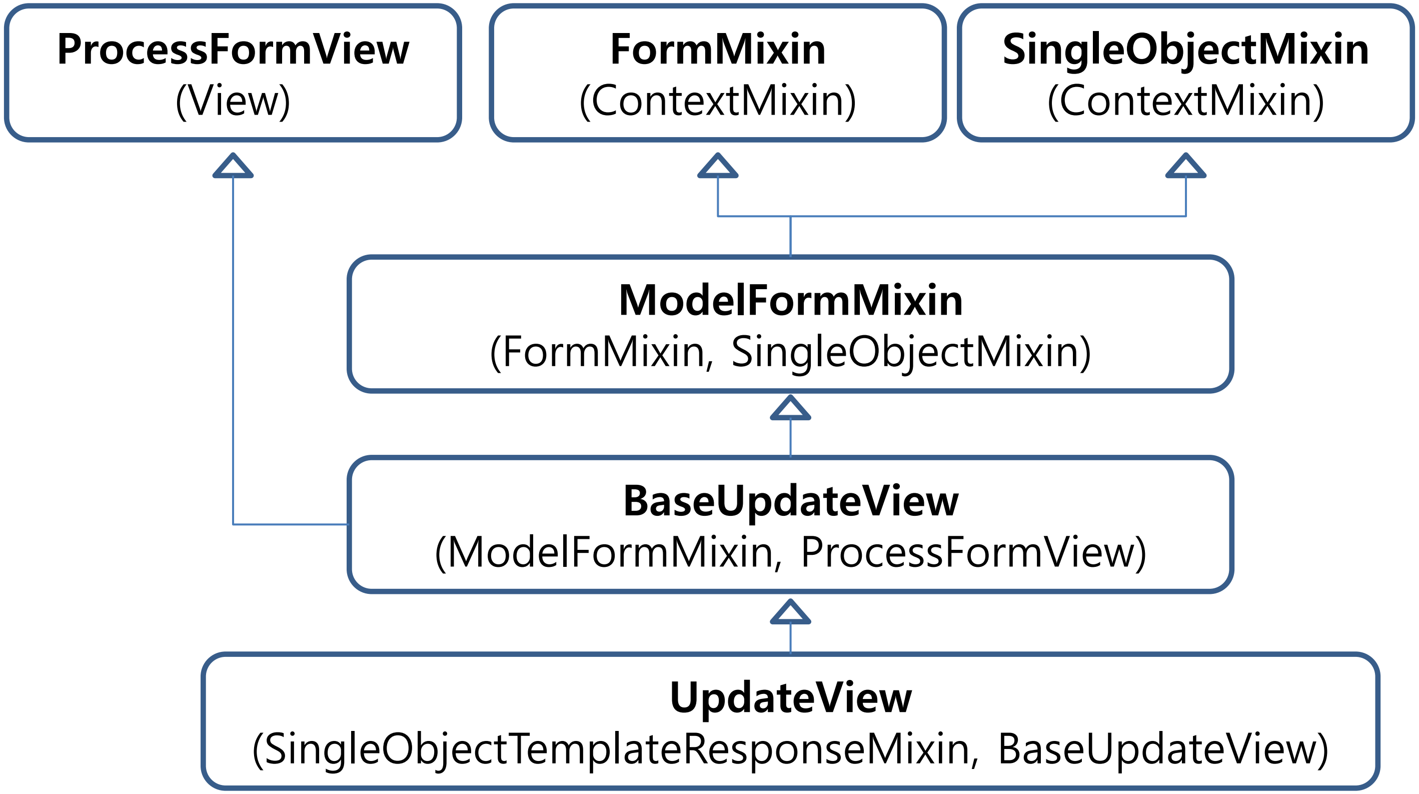
❖ CreateView

- 메서드 호출 순서
  - dispatch(request, *args, **kwargs)
  - get(request, *args, **kwargs)
    - self.object = None
    - return self.render_to_response(self.get_context_data())
  - post(request, *args, **kwargs):
    - self.object = None
    - form = self.get_form()
    - if form.is_valid():

```
   form_valid(form)
      self.object = form.save()
      return HttpResponseRedirect(self.get_success_url())
else:
   self.form_invalid(form)
      return self.render_to_response(
                    self.get_context_data(form=form))
```

단일 항목 수정 제네릭 뷰

❖ edit.py(UpdateView)



단일 항목 수정 제너릭 뷰

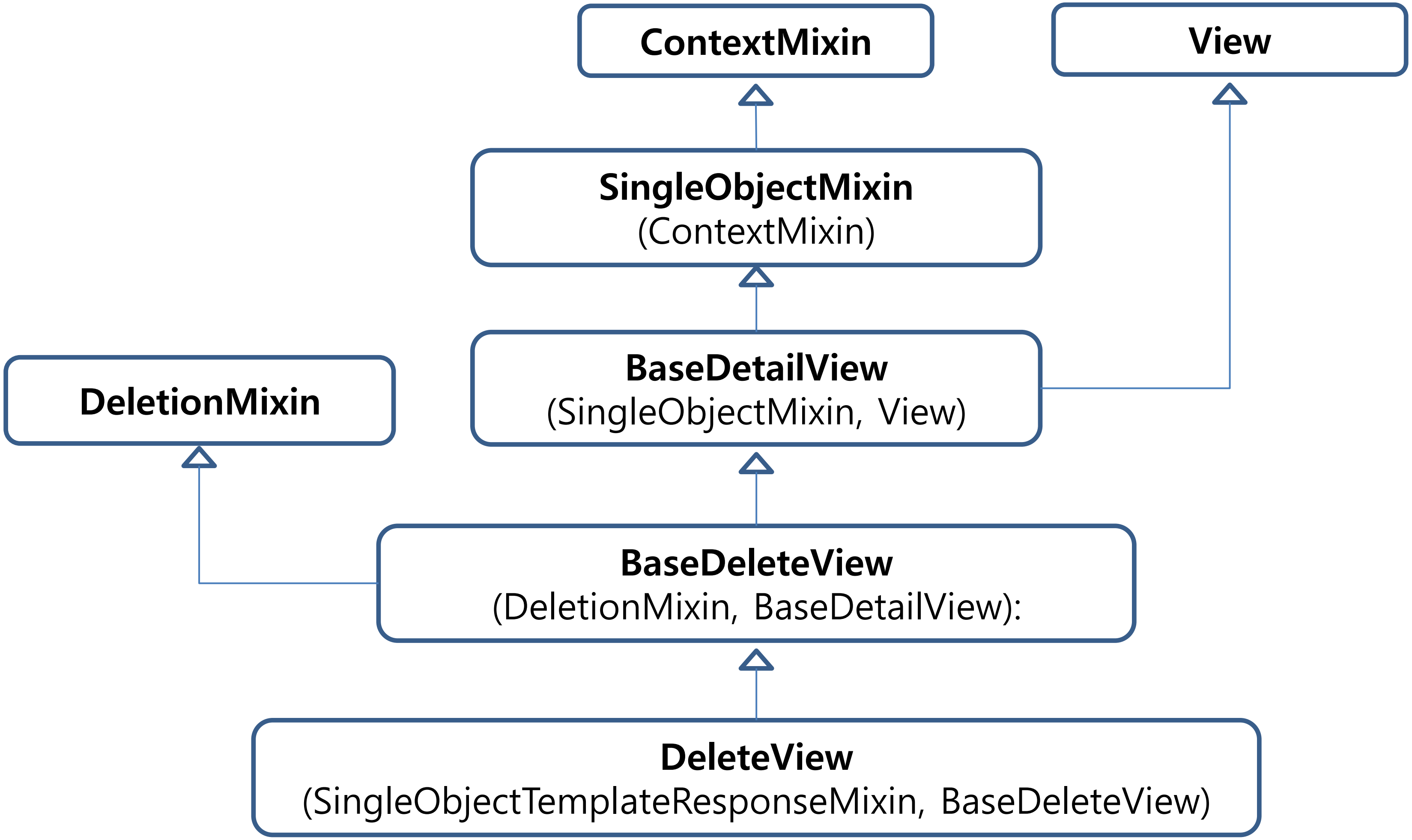
❖ UpdateView(SingleObjectTemplateResponseMixin, BaseUpdateView)

- 메서드 호출 순서

```
▪ dispatch(request, *args, **kwargs)
▪ get(request, *args, **kwargs)
  - self.object = self.get_object()
  - return self.render_to_response(self.get_context_data())
▪ post(request, *args, **kwargs):
  - self.object = self.get_object()
  - form = self.get_form()
  - if form.is_valid():
        form_valid(form)
           self.object = form.save()
           return HttpResponseRedirect(self.get_success_url())
    else:
        self.form_invalid(form)
           return self.render_to_response(
                          self.get_context_data(form=form))
```

단일 항목 수정 제너릭 뷰

❖ edit.py(DeleteView)


ContextMixin
View
SingleObjectMixin
(ContextMixin)
DeletionMixin
BaseDetailView
(SingleObjectMixin, View)
BaseDeleteView
(DeletionMixin, BaseDetailView):
DeleteView
(SingleObjectTemplateResponseMixin, BaseDeleteView)

단일 항목 수정 제너릭 뷰

❖ **DeleteView(SingleObjectTemplateResponseMixin, BaseDeleteView)**

- 메서드 호출 순서
  - `dispatch(request, *args, **kwargs)`
  - `get(request, *args, **kwargs)`
    - `return HttpResponseRedirect()`

  - `post(request, *args, **kwargs)`
    - `delete(request, *args, **kwargs)`

```
self.object = self.get_object()
success_url = self.get_success_url()
self.object.delete()
return HttpResponseRedirect(success_url)
```