Datashield Solutions

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Welcome to the Datashield Solutions backend documentation. This guide provides comprehensive information about our system, its components, and how to use them effectively.

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CHAPTER

ONE

CONTENTS

1.1 Core's Documentation

This module handles the root details within the application.

1.2 Audit Log Documentation

This module handles the logging of audit events within the application.

```
class audit_log.models.AuditLog(*args, **kwargs)
```

Bases: Model

Model representing an audit log entry for actions performed in the system.

```
ACTION_CHOICES = [('CREATE', 'Create'), ('READ', 'Read'), ('UPDATE', 'Update'), ('DELETE', 'Delete'), ('LOGIN', 'Login'), ('LOGOUT', 'Logout'), ('EXPORT', 'Export Data'), ('IMPORT', 'Import Data'), ('COMPLIANCE_CHECK', 'Compliance Check')]
```

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

action

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

action_description

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

additional_data

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

affected_resource

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

compliance_notes

created_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
get_action_display(*, field=<django.db.models.fields.CharField: action>)
```

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

ip_address

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

is_compliant

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

classmethod log_action(organization, user, action, description, resource, ip_address=None, is_compliant=True, compliance_notes=")

Log an action performed in the system.

Parameters

- **organization** (Organization) The organization related to the action.
- user (User) The user who performed the action.
- **action** (*str*) The action performed.
- **description** (*str*) Description of the action.
- **resource** (*str*) The resource affected by the action.
- **ip_address** (*str*, *optional*) IP address from which the action was performed. Defaults to None.
- is_compliant (bool, optional) Indicates if the action was compliant. Defaults to True.
- **compliance_notes** (*str*, *optional*) Notes regarding compliance. Defaults to an empty string.

Returns

The created audit log entry.

Return type

AuditLog

```
objects = <django.db.models.manager.Manager object>
```

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

```
organization_id
```

user

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

```
user_id
audit_log.views.audit_log_detail(request, slug)
     View to retrieve a specific audit log by slug.
audit_log.views.audit_log_list(request)
     View to list all audit logs.
audit_log.views.log_action_view(request)
     View to log a new action.
class audit_log.forms.AuditLogForm(data=None, files=None, auto_id='id_%s', prefix=None, initial=None,
                                     error_class=<class 'django.forms.utils.ErrorList'>,
                                     label_suffix=None, empty_permitted=False, instance=None,
                                     use_required_attribute=None, renderer=None)
     Bases: ModelForm
     class Meta
         Bases: object
         fields = ['organization', 'user', 'action', 'action_description',
         'affected_resource', 'ip_address', 'is_compliant', 'compliance_notes',
          'additional_data']
         model
             alias of AuditLog
     base_fields = {'action': <django.forms.fields.TypedChoiceField object>,
     'action_description': <django.forms.fields.CharField object>, 'additional_data':
     <django.forms.fields.JSONField object>, 'affected_resource':
     <django.forms.fields.CharField object>, 'compliance_notes':
     <django.forms.fields.CharField object>, 'ip_address':
     <django.forms.fields.GenericIPAddressField object>, 'is_compliant':
     <django.forms.fields.BooleanField object>, 'organization':
     <django.forms.models.ModelChoiceField object>, 'user':
     <django.forms.models.ModelChoiceField object>}
     declared_fields = {}
```

property media

Return all media required to render the widgets on this form.

1.3 Authentication Documentation

This module provides authentication mechanisms for users.

```
class authentication.models.Organization(*args, **kwargs)
```

Bases: Model

Model representing an organization.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

address

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

auditlog_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

company_size

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

complianceaudit_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

compliancedocument_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

compliancereport_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

compliancestatus_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

contact_email

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

contact_number

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

contact_person

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

created_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

databreachreport_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

dataprocessingactivity_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

dpia_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

industry

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

name

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

```
save(*args, **kwargs)
```

Override save method to generate slug from organization name.

scheduledreport_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

slua

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

updated_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

users

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

class authentication.models.User(*args, **kwargs)

Bases: AbstractBaseUser, PermissionsMixin

Custom User model.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

```
REQUIRED_FIELDS = ['first_name', 'last_name', 'organization']
```

USERNAME_FIELD = 'email'

approvalworkflow_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

auditlog_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

complianceaudit_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

compliancedocument_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

created_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

email

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

first_name

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
get_full_name()
```

Return the full name of the user.

get_short_name()

Return the short name of the user.

groups

Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

In the example:

```
class Pizza(Model):
   toppings = ManyToManyField(Topping, related_name='pizzas')
```

Pizza.toppings and Topping.pizzas are ManyToManyDescriptor instances.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

incident_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

is_active

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

is_staff

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

is_superuser

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

last_login

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

last_name

objects = <authentication.models.UserManager object>

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

password

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

policy_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

policyversion_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

```
save(*args, **kwargs)
```

Override save method to generate slug from email.

slug

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

updated_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

user_permissions

Accessor to the related objects manager on the forward and reverse sides of a many-to-many relation.

```
class Pizza(Model):
              toppings = ManyToManyField(Topping, related_name='pizzas')
         Pizza.toppings and Topping.pizzas are ManyToManyDescriptor instances.
         Most of the implementation is delegated to a dynamically defined manager class built by
         create_forward_many_to_many_manager() defined below.
class authentication.models.UserManager(*args, **kwargs)
     Bases: BaseUserManager
     Manager for the custom User model.
     create_superuser(email, first_name, last_name, organization, password)
         Create and return a superuser with an email, first name, last name, organization, and password.
     create_user(email, first_name, last_name, organization, password=None)
         Create and return a user with an email, first name, last name, organization, and password.
authentication.views.organization_detail(request, slug)
authentication.views.organization_list(request)
authentication.views.organization_register(request)
authentication.views.user_detail(request, slug)
authentication.views.user_list(request)
authentication.views.user_login(request)
authentication.views.user_register(request)
class authentication.forms.OrganizationRegistrationForm(data=None, files=None, auto_id='id_%s',
                                                             prefix=None, initial=None,
                                                             error class=<class
                                                             'django.forms.utils.ErrorList'>,
                                                             label_suffix=None,
                                                             empty permitted=False, instance=None,
                                                             use_required_attribute=None,
                                                             renderer=None)
     Bases: ModelForm
     class Meta
         Bases: object
         fields = ['name', 'address', 'contact_person', 'contact_email',
          'contact_number', 'industry', 'company_size']
         model
             alias of Organization
     base_fields = {'address': <django.forms.fields.CharField object>, 'company_size':
     <django.forms.fields.CharField object>, 'contact_email':
     <django.forms.fields.CharField object>, 'contact_number':
     <django.forms.fields.CharField object>, 'contact_person':
     <django.forms.fields.CharField object>, 'industry': <django.forms.fields.CharField</pre>
     object>, 'name': <django.forms.fields.CharField object>}
```

```
declared_fields = {}
     property media
          Return all media required to render the widgets on this form.
class authentication.forms.UserRegistrationForm(data=None, files=None, auto_id='id_%s',
                                                     prefix=None, initial=None, error class=<class
                                                     'django.forms.utils.ErrorList'>, label_suffix=None,
                                                     empty permitted=False, instance=None,
                                                     use_required_attribute=None, renderer=None)
     Bases: ModelForm
     class Meta
          Bases: object
          fields = ['email', 'first_name', 'last_name', 'organization', 'password']
          model
              alias of User
          widgets = {'password': <django.forms.widgets.PasswordInput object>}
     base_fields = {'email': <django.forms.fields.EmailField object>, 'first_name':
     <django.forms.fields.CharField object>, 'last_name': <django.forms.fields.CharField</pre>
     object>, 'organization': <django.forms.modelS.ModelChoiceField object>, 'password':
     <django.forms.fields.CharField object>}
     declared_fields = {}
     property media
          Return all media required to render the widgets on this form.
     save(commit=True)
          Save this form's self.instance object if commit=True. Otherwise, add a save m2m() method to the form
          which can be called after the instance is saved manually at a later time. Return the model instance.
1.4 Compliance Management Documentation
This module manages compliance-related functionalities.
```

```
class compliance_management.models.ComplianceDocument(*args, **kwargs)
    Bases: Model
    Model representing a compliance document uploaded by an organization.
    exception DoesNotExist
        Bases: ObjectDoesNotExist
    exception MultipleObjectsReturned
        Bases: MultipleObjectsReturned
```

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

document_type

expiry_date

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

file

The descriptor for the file attribute on the model instance. Return a FieldFile when accessed so you can write code like:

```
>>> from myapp.models import MyModel
>>> instance = MyModel.objects.get(pk=1)
>>> instance.file.size
```

Assign a file object on assignment so you can do:

```
>>> with open('/path/to/hello.world') as f:
... instance.file = File(f)
```

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

title

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

upload_date

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

uploaded_by

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

uploaded_by_id

```
class compliance_management.models.ComplianceReport(*args, **kwargs)
```

Bases: Model

Model representing a compliance report generated for an organization.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

file

The descriptor for the file attribute on the model instance. Return a FieldFile when accessed so you can write code like:

```
>>> from myapp.models import MyModel
>>> instance = MyModel.objects.get(pk=1)
>>> instance.file.size
```

Assign a file object on assignment so you can do:

```
>>> with open('/path/to/hello.world') as f:
... instance.file = File(f)
```

filters

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

generated_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

report_type

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class compliance_management.models.ComplianceStatus(*args, **kwargs)

Bases: Model

Model representing the compliance status of an organization.

```
COMPLIANCE_STATUS_CHOICES = [('compliant', 'Compliant'), ('non-compliant',
'Non-Compliant')]
```

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

compliance_status

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

data_protection_regulations

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

```
data_protection_regulations_id
```

```
get_compliance_status_display(*, field=<django.db.models.fields.CharField: compliance_status>)
```

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

last_checked_at

objects = <django.db.models.manager.Manager object>

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

```
class compliance_management.models.DPIA(*args, **kwargs)
```

Bases: Model

Model representing a Data Protection Impact Assessment (DPIA).

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

created_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

data_types

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

description

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

project_name

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

risks

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class compliance_management.models.DataProcessingActivity(*args, **kwargs)

Bases: Model

Model representing a data processing activity conducted by an organization.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

activity_name

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

data_categories

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

data_subjects

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

is_high_risk

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

last_reviewed

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

objects = <django.db.models.manager.Manager object>

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

purpose

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

retention_period

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

security_measures

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class compliance_management.models.DataProtectionRegulation(*args, **kwargs)

Bases: Model

Model representing a data protection regulation.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

compliancestatus_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

description

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

jurisdiction

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

kenyadpa_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

name

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

```
class compliance_management.models.Incident(*args, **kwargs)
```

Bases: Model

Model representing an incident report.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

date

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

description

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
get_next_by_date(*, field=<django.db.models.fields.DateField: date>, is_next=True, **kwargs)
```

```
get_previous_by_date(*, field=<django.db.models.fields.DateField: date>, is_next=False, **kwargs)
```

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

reported_by

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

reported_by_id

```
class compliance_management.models.KenyaDPA(*args, **kwargs)
```

Bases: Model

Model representing the data protection regulations specific to Kenya.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

category

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

data_protection_regulation_id

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

data_protection_regulation_id_id

description

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

key_points

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

section_in_act

```
compliance_management.views.compliance_document_detail(request, slug)
compliance_management.views.compliance_document_list(request)
compliance_management.views.compliance_report_detail(request, slug)
compliance_management.views.compliance_report_list(request)
compliance_management.views.compliance_status_detail(request, slug)
compliance_management.views.compliance_status_list(request)
compliance_management.views.create_compliance_document(request)
```

```
compliance_management.views.create_compliance_report(request)

compliance_management.views.create_compliance_status(request)

compliance_management.views.create_data_processing_activity(request)

compliance_management.views.create_data_protection_regulation(request)

compliance_management.views.create_dpi_a(request)

compliance_management.views.create_incident(request)

compliance_management.views.data_processing_activity_detail(request, slug)

compliance_management.views.data_protection_regulation_detail(request, slug)

compliance_management.views.data_protection_regulation_list(request)

compliance_management.views.data_protection_regulation_list(request)

compliance_management.views.dpi_a_detail(request, slug)

compliance_management.views.dpi_a_list(request)

compliance_management.views.incident_detail(request, slug)

compliance_management.views.incident_list(request)
```

1.5 Policy Management Documentation

This module handles the creation and management of policies.

```
class policy_management.models.ApprovalWorkflow(*args, **kwargs)
```

Bases: Model

Model representing an approval workflow for policies.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

approved_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

approved_by

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

```
approved_by_id
```

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

policy

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

policy_id

status

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class policy_management.models.Policy(*args, **kwargs)

Bases: Model

Model representing a policy document.

exception DoesNotExist

Bases: ObjectDoesNotExist

${\tt exception~MultipleObjectsReturned}$

Bases: MultipleObjectsReturned

approvalworkflow_set

Accessor to the related objects manager on the reverse side of a many-to-one relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

 ${\tt Parent.children}\ is\ a\ {\tt ReverseManyToOneDescriptor}\ instance.$

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

created_at

created_by

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

created_by_id

description

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

is_active

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

slug

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

title

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

updated_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

versions

Accessor to the related objects manager on the reverse side of a many-to-one relation.

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Parent.children is a ReverseManyToOneDescriptor instance.

Most of the implementation is delegated to a dynamically defined manager class built by create_forward_many_to_many_manager() defined below.

```
class policy_management.models.PolicyVersion(*args, **kwargs)
```

```
Bases: Model
```

Model representing a version of a policy document.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

created_at

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

created_by

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

created_by_id

document

The descriptor for the file attribute on the model instance. Return a FieldFile when accessed so you can write code like:

```
>>> from myapp.models import MyModel
>>> instance = MyModel.objects.get(pk=1)
>>> instance.file.size
```

Assign a file object on assignment so you can do:

```
>>> with open('/path/to/hello.world') as f:
... instance.file = File(f)
```

id

```
objects = <django.db.models.manager.Manager object>
```

policy

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

policy_id

version_number

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
policy_management.views.approval_workflow_detail(request, slug, id)
policy_management.views.approval_workflow_list(request, slug)
policy_management.views.create_approval_workflow(request, slug)
policy_management.views.create_policy(request)
policy_management.views.create_policy_version(request, slug)
policy_management.views.policy_detail(request, slug)
policy_management.views.policy_list(request)
policy_management.views.policy_version_detail(request, slug, version_number)
policy_management.views.policy_version_list(request, slug)
class policy_management.forms.ApprovalWorkflowForm(*args, **kwargs)
    Bases: ModelForm
    class Meta
         Bases: object
         fields = ('policy', 'approved_by', 'status')
         model
             alias of ApprovalWorkflow
    base_fields = {'approved_at_display': <django.forms.fields.CharField object>,
     'approved_by': <django.forms.models.ModelChoiceField object>, 'policy':
    <django.forms.models.ModelChoiceField object>, 'status':
    <django.forms.fields.BooleanField object>}
    declared_fields = {'approved_at_display': <django.forms.fields.CharField object>}
    property media
```

Return all media required to render the widgets on this form.

```
class policy_management.forms.PolicyForm(data=None, files=None, auto_id='id_%s', prefix=None,
                                             initial=None, error_class=<class
                                             'django.forms.utils.ErrorList'>, label suffix=None,
                                             empty_permitted=False, instance=None,
                                             use_required_attribute=None, renderer=None)
     Bases: ModelForm
     class Meta
         Bases: object
          fields = ('title', 'description', 'created_by', 'is_active')
          model
             alias of Policy
     base_fields = {'created_by': <django.forms.models.ModelChoiceField object>,
     'description': <django.forms.fields.CharField object>, 'is_active':
     <django.forms.fields.BooleanField object>, 'title': <django.forms.fields.CharField</pre>
     object>}
     declared_fields = {}
     property media
          Return all media required to render the widgets on this form.
class policy_management.forms.PolicyVersionForm(data=None, files=None, auto_id='id_%s',
                                                     prefix=None, initial=None, error_class=<class
                                                     'django.forms.utils.ErrorList'>, label_suffix=None,
                                                     empty_permitted=False, instance=None,
                                                     use_required_attribute=None, renderer=None)
     Bases: ModelForm
     class Meta
         Bases: object
          fields = ('version_number', 'document', 'created_by')
         model
             alias of PolicyVersion
     base_fields = {'created_by': <django.forms.models.ModelChoiceField object>,
     'document': <django.forms.fields.FileField object>, 'version_number':
     <django.forms.fields.IntegerField object>}
     declared_fields = {}
     property media
          Return all media required to render the widgets on this form.
1.6 Reporting Documentation
This module provides reporting functionalities for the application.
class reporting.models.ComplianceAudit(*args, **kwargs)
     Bases: Model
```

Model representing a compliance audit conducted for an organization.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

audit_date

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

audit_findings

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

auditor

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

auditor id

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

is_resolved

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
   parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

recommendations

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

resolution_date

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class reporting.models.DataBreachReport(*args, **kwargs)

```
Bases: Model
```

Model representing a report of a data breach incident.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

```
SEVERITY_CHOICES = [('LOW', 'Low'), ('MEDIUM', 'Medium'), ('HIGH', 'High'),
('CRITICAL', 'Critical')]
```

affected_data_subjects

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

clean()

Validate the data breach report before saving.

data_types_affected

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

date_reported_to_authorities

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

date_reported_to_data_subjects

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

description

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

discovery_date

```
get_severity_display(*, field=<django.db.models.fields.CharField: severity>)
```

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

incident_date

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

is_within_72_hours

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

potential_impact

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

remediation_steps

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

report_generated_date

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

reported_to_authorities

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

reported_to_data_subjects

```
save(*args, **kwargs)
```

Override save method to perform validation and set is_within_72_hours.

severity

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class reporting.models.ScheduledReport(*args, **kwargs)

Bases: Model

Model representing a scheduled compliance report for an organization.

exception DoesNotExist

Bases: ObjectDoesNotExist

exception MultipleObjectsReturned

Bases: MultipleObjectsReturned

email_recipients

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

interval

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

```
objects = <django.db.models.manager.Manager object>
```

organization

Accessor to the related object on the forward side of a many-to-one or one-to-one (via ForwardOne-ToOneDescriptor subclass) relation.

In the example:

```
class Child(Model):
    parent = ForeignKey(Parent, related_name='children')
```

Child.parent is a ForwardManyToOneDescriptor instance.

organization_id

report_type

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

schedule_time

```
reporting.views.compliance_audit_detail(request, id)
reporting.views.compliance_audit_list(request)
reporting.views.create_compliance_audit(request)
reporting.views.create_data_breach_report(request)
reporting.views.create_scheduled_report(request)
reporting.views.data_breach_report_detail(request, id)
reporting.views.data_breach_report_list(request)
reporting.views.scheduled_report_detail(request, id)
reporting.views.scheduled_report_list(request)
```

1.7 Analytics Documentation

This module handles analytics and data analysis features.

```
analytics.views.metrics_view(request)
```

1.8 Ingestion Documentation

This module handles the ingestion and APIs within the application.

```
class ingestion.models.DataEntry(id, data, metadata, processed_data, status, created_at, updated_at)
     Bases: Model
     exception DoesNotExist
          Bases: ObjectDoesNotExist
     exception MultipleObjectsReturned
          Bases: MultipleObjectsReturned
     STATUS_CHOICES = [('uploaded', 'Uploaded'), ('processing', 'Processing'),
     ('processed', 'processed'), ('failed', 'failed')]
     created_at
          A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is
```

data

```
get_next_by_created_at(*, field=<django.db.models.fields.DateTimeField: created_at>, is_next=True,
                           **kwargs)
```

```
get_next_by_updated_at(*, field=<django.db.models.fields.DateTimeField: updated_at>, is_next=True,
```

```
get_previous_by_created_at(*, field=<django.db.models.fields.DateTimeField: created_at>,
                                is next=False, **kwargs)
```

get_status_display(*, field=<django.db.models.fields.CharField: status>)

id

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

metadata

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is

```
objects = <django.db.models.manager.Manager object>
```

processed_data

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

status

A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

updated_at

CHAPTER

TWO

GETTING STARTED

To get started with Datashield Solutions, please refer to the individual module documentation listed in the Contents section above.

CHAPTER

THREE

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