## Project: Backend

```
✓ backend
♣ __init__.py
♣ asgi.py
♣ permissions.py
♣ serializers.py
♣ settings.py
♣ urls.py
♣ wsgi.py
```

## asgi.py





## permissions.py



### CI Python Linter

```
from rest_framework import permissions
    class IsOwnerOrReadOnly(permissions.BasePermission):
        def has_object_permission(self, request, view, obj):
            if request.method in permissions.SAFE_METHODS:
                return True
            return obj.owner == request.user
10
    class IsInviteOwnerOrReadOnly(permissions.BasePermission):
12 -
        def has_object_permission(self, request, view, obj):
13 -
            if request.method in permissions.SAFE_METHODS:
14
                return True
15
            return obj.user == request.user and obj.inbound
16
17
    class IsAuthorOrReadOnly(permissions.BasePermission):
        def has_object_permission(self, request, view, obj):
19 -
20 +
            if request.method in permissions.SAFE_METHODS:
21
                return True
22
            return obj.author == request.user
23
24
```

### Settings:



#### Results:

## serializers.py



### CI Python Linter

```
from dj_rest_auth.serializers import UserDetailsSerializer
    from rest_framework import serializers
    class CurrentUserSerializer(UserDetailsSerializer):
        profile_id = serializers.ReadOnlyField(source='profile.id')
        profile_avatar = serializers.ReadOnlyField(source='profile.avatar.url')
        default_workstream = serializers.ReadOnlyField(
            source='profile.default_workstream.name'
10
11
        default_workstream_id = serializers.ReadOnlyField(
12
            source='profile.default_workstream.id'
13
14
15 -
        class Meta(UserDetailsSerializer.Meta):
            fields = UserDetailsSerializer.Meta.fields + (
16
17
                 'profile_id', 'profile_avatar', 'default_workstream',
                'default_workstream_id'
18
19
20
```

#### Settings:





#### Results:

## settings.py



### CI Python Linter

```
Django settings for backend project.
    Generated by 'django-admin startproject' using Django 3.2.4.
   For more information on this file, see
    https://docs.djangoproject.com/en/3.2/topics/settings/
    For the full list of settings and their values, see
   https://docs.djangoproject.com/en/3.2/ref/settings/
12
13 from pathlib import Path
14 import os
15 import dj_database_url
17 - if os.path.exists('env.py'):
18
        import env
19
20 - CLOUDINARY_STORAGE = {
        'CLOUDINARY_URL': os.environ.get('CLOUDINARY_URL')
22 }
23 MEDIA_URL = '/media/'
24 DEFAULT_FILE_STORAGE = 'cloudinary_storage.storage.MediaCloudinaryStorage'
```

#### Settings:



#### Results:

<u>168</u>: E501 line too long (91 > 79 characters)

<u>171</u>: E501 line too long (81 > 79 characters)

<u>174</u>: E501 line too long (82 > 79 characters)

177: E501 line too long (83 > 79 characters)

Some lines of standard Django code are too long and impossible to reduce.

## urls.py



### CI Python Linter

```
from django.contrib import admin
    from diango.urls import path, include
 4 - urlpatterns = [
        path('admin/', admin.site.urls),
        path('', include('frontend.urls')),
        path('api-auth/', include('rest_framework.urls')),
        path('dj-rest-auth/', include('dj_rest_auth.urls')),
        path('dj-rest-auth/registration/', include(
10
            'dj_rest_auth.registration.urls'
11
            )),
12
        path('api/', include('profiles.urls')),
13
        path('api/', include('workstream.urls')),
14
        path('api/', include('category.urls')),
15
        path('api/', include('task.urls')),
16
        path('api/', include('project.urls')),
        path('api/', include('invite.urls')),
17
18
19
```

### Settings:



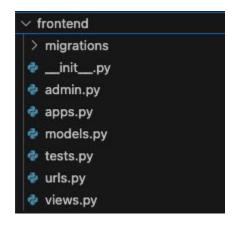
#### Results:

## wsgi.py





## App: Frontend



## apps.py



```
from django.apps import AppConfig
                                                                                         Settings:
                                                                                          - class FrontendConfig(AppConfig):
     default_auto_field = 'django.db.models.BigAutoField'
     name = 'frontend'
                                                                                         Results:
                                                                                         All clear, no errors found
```

## urls.py



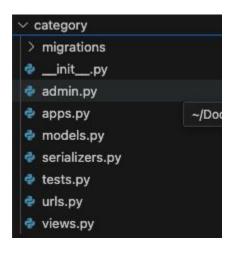
```
from django.urls import path, re_path
                                                                                               Settings:
    from .views import index
                                                                                                ( O :
 4 - urlpatterns = [
       path('', index, name='index'),
       re_path(
           r"^(?!api/lapi|dj-rest-auth/ldj-rest-auth).*",
                                                                                               Results:
           index,
                                                                                               All clear, no errors found
10 ]
11
```

## views.py



```
from django.shortcuts import render
                                                                                          Settings:
                                                                                           # Create your views here.
5 - def index(request):
      return render(request, "build/index.html")
                                                                                          Results:
                                                                                          All clear, no errors found
```

## App: Category



## apps.py



```
'''apps for category app'''
                                                                                               Settings:
  from django.apps import AppConfig
                                                                                                ( O :
5 - class CategoryConfig(AppConfig):
      default_auto_field = 'django.db.models.BigAutoField'
      name = 'category'
                                                                                               Results:
                                                                                               All clear, no errors found
```

## models.py



### CI Python Linter

```
'''models for category app'''
   from django.db import models
    from django.contrib.auth.models import User
    from workstream.models import Workstream
 6
 7 - class Category(models.Model):
        '''Category Model'''
        owner = models.ForeignKey(User, on_delete=models.CASCADE)
10
        created_at = models.DateTimeField(auto_now_add=True)
11
        updated_at = models.DateTimeField(auto_now=True)
12
        name = models.CharField(max_length=255, blank=True)
        workstream = models.ForeignKey(
13
14
            Workstream, on_delete=models.CASCADE,
15
            related_name='category_workstream'
16
17
18 -
        class Meta:
19
            ordering = ['-created_at']
20
21 -
        def __str__(self):
22
            return self.name
23
```

### Settings:



#### Results:

## serializers.py



### CI Python Linter



### Settings:



#### Results:

## urls.py



### CI Python Linter

```
1 '''urls for category app'''
2 from django.urls import path
from category import views
4
5 urlpatterns = [
    path('category/', views.CategoryList.as_view()),
    path('category/<int:pk>/', views.CategoryDetail.as_view()),
8 ]
9
```

#### Settings:



#### Results:

## views.py



### CI Python Linter

```
1 '''view for category app'''
   from rest_framework import generics
    from backend.permissions import IsStaffOrReadOnly
   from .models import Category
    from .serializers import CategorySerializer
    class CategoryList(generics.ListCreateAPIView):
10
        List Category view
11
12
        serializer_class = CategorySerializer
13
        permission_classes = [IsStaffOrReadOnly]
14
15 -
        def get_queryset(self):
16
17
            This view should return a list of all the categories in the
            current users default workstream
18
19
            user = self.request.user
20
21
            return Category.objects.filter(
22
                workstream=user.profile.default_workstream
23
24
```

### Settings:



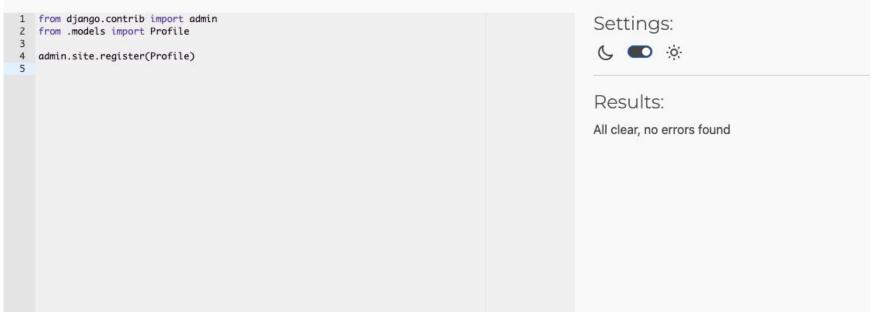
#### Results:

## App: Profiles

```
✓ profiles
> migrations
➾ __init__.py
➾ admin.py
➾ apps.py
➾ models.py
➾ serializers.py
➾ tests.py
➾ urls.py
➾ views.py
```

## admin.py





## apps.py



```
from django.apps import AppConfig
                                                                                           Settings:
                                                                                           ( O
class ProfilesConfig(AppConfig):
     default_auto_field = 'django.db.models.BigAutoField'
     name = 'profiles'
                                                                                           Results:
                                                                                           All clear, no errors found
```

## models.py



### CI Python Linter

```
'''Models for profiles app''
    from diango.db import models
    from django.db.models.signals import post_save
    from django.contrib.auth.models import User
    from workstream.models import Workstream
    class Profile(models.Model):
        '''Profile model'''
        owner = models.OneToOneField(User, on_delete=models.CASCADE)
10
        created_at = models.DateTimeField(auto_now_add=True)
11
12
        updated_at = models.DateTimeField(auto_now=True)
        first_name = models.CharField(max_length=255, blank=True)
13
        last_name = models.CharField(max_length=255, blank=True)
14
15
        avatar = models.ImageField(
16
            upload_to='images/avatar/', default='../default_profile_dkfagb'
17
        default_workstream = models.ForeignKey(
18
19
            Workstream, null=True, on_delete=models.SET_NULL)
20
21 +
        class Meta:
22
            ordering = ['-created_at']
23
24 +
        def str (self):
```

### Settings:



#### Results:

## serializers.py



### CI Python Linter

```
from rest_framework import serializers
    from .models import Profile
    from workstream.models import Workstream
    class UserWorkstreamForeignKey(serializers.PrimaryKeyRelatedField):
        '''class for returning user specific workstream'''
8 -
        def get_queryset(self):
            user = self.context['request'].user
10
            return Workstream.objects.filter(ws_participants_owner=user)
11
12
    class ProfileSerializer(serializers.ModelSerializer):
        '''serializer for get profile api'''
14
15
        owner = serializers.ReadOnlyField(source='owner.username')
16
        is_owner = serializers.SerializerMethodField()
17
        default_workstream = UserWorkstreamForeignKey()
18
19 -
        def get_is_owner(self, obj):
20
            request = self.context['request']
21
            return request.user == obj.owner
22
23 -
        class Meta:
24
            model = Profile
```

#### Settings:



#### Results:

## urls.py



### CI Python Linter

```
1 '''urls for profiles app'''
2 from django.urls import path
3 from profiles import views
4
5 urlpatterns = [
6    path('profiles/', views.ProfileList.as_view()),
7    path('profiles/invite/', views.ProfileInviteList.as_view()),
8    path('profiles/<int:pk>/', views.ProfileDetail.as_view()),
9    path('profiles/switch/<int:pk>/', views.ProfileSwitchWorkstream.as_view()),
10 ]
11
```

### Settings:



#### Results:

## views.py

# code

### CI Python Linter

```
'''view for profiles app'''
    from django.db.models import Count
    from django.db.models import 0
 4 from rest_framework import generics
    from backend.permissions import IsOwnerOrReadOnly
    from .models import Profile
    from .serializers import *
    class ProfileList(generics.ListAPIView):
11
12
        List all profiles.
13
        No create view as profile creation is handled by django signals.
14
15
        queryset = Profile.objects.all().order_by('-created_at')
        serializer_class = ProfileSerializer
16
17
18
    class ProfileInviteList(generics.ListAPIView):
20
        List all profiles for workstream invites
21
22
        excludes already participating users and pending invite
23
24
        serializer class = ProfileSerializer
```

### Settings:



#### Results:

## App: Project

## apps.py



```
'''apps for project app'''
                                                                                               Settings:
   from django.apps import AppConfig
                                                                                                ( O o
5 - class ProjectConfig(AppConfig):
      default_auto_field = 'django.db.models.BigAutoField'
      name = 'project'
                                                                                                Results:
                                                                                               All clear, no errors found
```

## models.py



### CI Python Linter

```
'''models for project model''
    from django.db import models
    from django.contrib.auth.models import User
    from workstream.models import Workstream
 7 - class Project(models.Model):
        Project model
10
11
        title = models.CharField(max_length=255)
12
        workstream = models.ForeiqnKey(Workstream, on_delete=models.CASCADE)
        created_at = models.DateTimeField(auto_now_add=True)
13
        updated_at = models.DateTimeField(auto_now=True)
14
15
        owner = models.ForeignKey(User, on_delete=models.CASCADE)
16
17 -
        class Meta:
18
            ordering = ['-created_at']
19
20 -
        def __str__(self):
21
            return self.title
22
```

### Settings:



#### Results:

## serializers.py



### CI Python Linter

```
'''serialiser for project app'''
    from rest_framework import serializers
    from .models import Project
 6 - class ProjectSerializer(serializers.ModelSerializer):
        Project serializer
10
        owner = serializers.ReadOnlyField(source='owner.username')
11
        workstream = serializers.ReadOnlyField(source='workstream.name')
12
        is_owner = serializers.SerializerMethodField()
13
14 -
        def get_is_owner(self, obj):
15
            request = self.context['request']
16
            return request.user == obj.owner
17
18 -
        class Meta:
19
            model = Project
20 -
            fields = \Gamma
                 'id', 'owner', 'title', 'workstream', 'is_owner',
21
22
23
```

### Settings:



#### Results:

## urls.py



```
'''urls for project app'''
                                                                                              Settings:
   from django.urls import path
   from project import views
                                                                                               ( O
5 - urlpatterns = [
      path('project/', views.ProjectList.as_view()),
      path('project/<int:pk>/', views.ProjectDetail.as_view()),
                                                                                               Results:
                                                                                              All clear, no errors found
```

## views.py

# code

### CI Python Linter

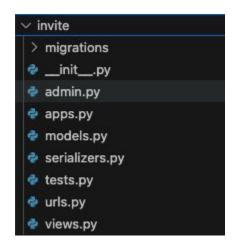
```
'''views for project app''
   from rest_framework import generics
    from backend.permissions import IsStaffOrReadOnly, IsOwnerOrReadOnly
    from .models import Project
    from .serializers import ProjectSerializer
    class ProjectList(generics.ListCreateAPIView):
10
        List project view api
11
12
        serializer_class = ProjectSerializer
13
        permission_classes = [IsStaffOrReadOnly]
14
15 -
        def get_queryset(self):
16
17
            filter list to display active users default workstream categories
18
19
            user = self.request.user
20
            return Project.objects.filter(
21
                workstream=user.profile.default_workstream)
22
23 -
        def perform_create(self, serializer):
24
```

### Settings:



#### Results:

## App: Invites



## apps.py



```
'''apps for invite app'''
                                                                                               Settings:
   from django.apps import AppConfig
                                                                                                ( D :
5 - class InviteConfig(AppConfig):
      default_auto_field = 'django.db.models.BigAutoField'
      name = 'invite'
                                                                                                Results:
                                                                                               All clear, no errors found
```

## models.py



### CI Python Linter

```
'''models for invite model''
    from django.db import models
    from django.db.models.signals import post_save
    from django.contrib.auth.models import User
    from workstream.models import Workstream
    class Invite(models.Model):
10
        Invite model
11
12
        workstream = models.ForeignKey(
13
            Workstream, on_delete=models.CASCADE, related_name='ws_invite')
14
        created_at = models.DateTimeField(auto_now_add=True)
15
        updated_at = models.DateTimeField(auto_now=True)
16
        user = models.ForeignKey(
17
            User, on_delete=models.CASCADE, related_name='user_invite')
18
        accepted = models.BooleanField(default=False)
19
        inbound = models.BooleanField(default=True)
20
21 -
        class Meta:
22
            ordering = ['-created_at']
23
24 -
        def __str__(self):
```

### Settings:



#### Results:

## serializers.py



### CI Python Linter

```
'''serializer for invite app'''
    from rest_framework import serializers
    from .models import Invite
    from workstream.models import Workstream
 7 - class InviteSerializer(serializers.ModelSerializer):
        serializer for inviting other users to your workstream
10
11
        accepted = serializers.ReadOnlyField()
12
        inbound = serializers.ReadOnlyField()
13
        workstream = serializers.ReadOnlyField(source='workstream.name')
14
        is_owner = serializers.SerializerMethodField()
15
        display_name = serializers.ReadOnlyField(source='user.username')
16
        avatar = serializers.ReadOnlyField(source='user.profile.avatar.url')
17
18 -
        def get_is_owner(self, obj):
19
            request = self.context['request']
20
            return obj.workstream.owner == request.user
21
77 -
        class Meta:
23
            model = Invite
            fields = \Gamma
24 -
```

### Settings:



#### Results:

## urls.py



```
'''urls for invites app''
                                                                                                 Settings:
   from django.urls import path
   from invite import views
                                                                                                 ( O
 5 - urlpatterns = [
       path('invite/', views.InviteList.as_view()),
       path('invite/<int:pk>/', views.InviteDetail.as_view()),
                                                                                                 Results:
       path('join/', views.JoinList.as_view()),
       path('join/<int:pk>/', views.JoinDetail.as_view()),
                                                                                                 All clear, no errors found
10
11
```

## views.py



### CI Python Linter

```
'''views for invites app'''
    from rest_framework import generics
    from backend.permissions import (IsWorkstreamOwnerOrReadOnly,
                                     IsInviteOwnerOrReadOnly,
                                      InvitePermissions
    from .models import Invite
    from .serializers import InviteSerializer, JoinSerializer, AcceptSerializer
10
11 - class InviteList(generics.ListCreateAPIView):
12
13
        List invites or create new
14
15
        serializer class = InviteSerializer
16
        permission_classes = [IsWorkstreamOwnerOrReadOnly]
17
18 -
        def get_queryset(self):
19
            filter list to display users default workstream invites
20
21
22
            user = self.request.user
23
            return Invite.objects.filter(
24
                workstream=user.profile.default_workstream)
```

#### Settings:



#### Results:

# App: Task

```
✓ task
> migrations
♣ __init__.py
♣ admin.py
♣ apps.py
♣ models.py
♣ serializers.py
♣ tests.py
♣ urls.py
♣ views.py
```

## apps.py



## CI Python Linter

```
'''apps for task app'''
                                                                                               Settings:
   from django.apps import AppConfig
                                                                                                ( O o
5 - class TaskConfig(AppConfig):
      default_auto_field = 'django.db.models.BigAutoField'
      name = 'task'
                                                                                               Results:
                                                                                               All clear, no errors found
```

# models.py



## CI Python Linter

```
'''models for task app''
    from django.db import models
    from django.contrib.auth.models import User
    from category.models import Category
    from project.models import Project
    class Task(models.Model):
10
        Task model
11
12 -
        PRIORITY_LEVELS = [
13
            (1, 'No-priority'),
            (Z, 'Low-priority'),
14
15
            (3, 'Medium-priority'),
16
            (4, 'High-priority'),
17
18
        author = models.ForeianKey(
19
            User, on_delete=models.CASCADE, related_name='author')
20
        created_at = models.DateTimeField(auto_now_add=True)
        updated_at = models.DateTimeField(auto_now=True)
21
22
        name = models.CharField(max_length=255)
23
        detail = models.TextField(blank=True)
24
        priority = models.IntegerField(choices=PRIORITY_LEVELS, default=1)
        is_completed = models.BooleanField(default=False)
```

### Settings:



### Results:

# serializers.py



## CI Python Linter

```
'''serializer for task app''
    from rest_framework import serializers
  from .models import Task
   from category.models import Category
    from category.serializers import CategorySerializer
    from project.serializers import ProjectSerializer
    from backend.serializers import CurrentUserSerializer
    class CategoryForeignKey(serializers.PrimaryKeyRelatedField):
11 -
        def get_guervset(self):
12
            user = self.context['request'].user
            return Category.objects.filter(
13
14
                workstream=user.profile.default_workstream)
15
16
    class TaskCreateSerializer(serializers.ModelSerializer):
18
        serializer for creating task
19
20
21
        author = serializers.ReadOnlyField(source='user.username')
22
        is_owner = serializers.SerializerMethodField()
23
        category = CategoryForeignKey()
24
```

### Settings:



### Results:

# urls.py



## CI Python Linter

```
'''urls for task app'''
    from django.urls import path
    from task import views
5 - urlpatterns = Γ
        path('task/open/', views.TaskListOpen.as_view()),
        path('task/assigned/', views.TaskListAssigned.as_view()),
        path('task/create/', views.TaskCreate.as_view()),
        path('tasklist/', views.UserTaskList.as_view()),
10
        path('task/<int:pk>/', views.TaskDetail.as_view()),
11
        path('task/<int:pk>/complete/', views.CompleteTask.as_view()),
12
        path('task/<int:pk>/admin/', views.TaskAssignAdmin.as_view()),
13
        path('task/<int:pk>/assign/', views.TaskAssignSelf.as_view()),
14
        path('task/<int:pk>/leave/', views.TaskUnassignSelf.as_view()),
15
16
```

### Settings:



#### Results:

# views.py



## CI Python Linter

```
'''views for task app'''
    from rest_framework import generics
    from backend.permissions import (IsOwnerOrReadOnly,
                                      IsAuthorOrReadOnly,
                                      IsParticipantOrReadOnly)
    from .models import Task
    from .serializers import *
10 - class TaskCreate(generics.CreateAPIView):
11
12
        Task create view
13
        serializer_class = TaskCreateSerializer
14
15
16 -
        def perform_create(self, serializer):
17
             serializer.save(author=self.request.user)
18
19
    class TaskListOpen(generics.ListAPIView):
21
22
        List all unassigned task in current users default workstream.
23
24
        serializer class = TaskSerializer
```

### Settings:



### Results:

# App: Workstream

```
✓ workstream
⇒ migrations
➡ __init__.py
➡ admin.py
➡ apps.py
➡ models.py
➡ serializers.py
➡ tests.py
➡ urls.py
➡ views.py
```

## apps.py



## CI Python Linter

```
'''apps for workstream app''
                                                                                               Settings:
   from django.apps import AppConfig
                                                                                                ( O o
5 - class WorkstreamConfig(AppConfig):
       default_auto_field = 'django.db.models.BigAutoField'
      name = 'workstream'
                                                                                               Results:
                                                                                               All clear, no errors found
```

# models.py



## CI Python Linter

```
'''models for workstream app'''
    from django.db import models
    from django.db.models.signals import post_save
    from django.contrib.auth.models import User
 7 - class Workstream(models.Model):
        '''Workstream Model'''
        owner = models.ForeignKey(User, on_delete=models.CASCADE)
10
        created_at = models.DateTimeField(auto_now_add=True)
11
        updated_at = models.DateTimeField(auto_now=True)
12
        name = models.CharField(max_length=255, blank=True)
13
        users = models.ManyToManyField(
14
            User, through='Participant', related_name='workstream_users')
15
16 -
        class Meta:
            ordering = ['-created_at']
17
18
19 -
        def __str__(self):
20
            return self.name
21
22
23 - class Participant(models.Model):
        '''Participant model'''
```

### Settings:



### Results:

# serializers.py



## CI Python Linter

```
'''serializer for workstream app''
    from rest_framework import serializers
    from .models import Workstream, Participant
    from backend.serializers import CurrentUserSerializer
7 - class WorkstreamSerializer(serializers.ModelSerializer):
        workstream serializer
10
11
        owner = CurrentUserSerializer(read_only=True)
12
        users = CurrentUserSerializer(many=True, read_only=True)
13
        is_owner = serializers.SerializerMethodField()
14
15 -
        def get_is_owner(self, obj):
16
            request = self.context['request']
17
            return request.user == obj.owner
18
19 -
        class Meta:
20
            model = Workstream
21 -
            fields = \Gamma
                'id', 'owner', 'created_at', 'updated_at', 'name',
22
                'users', 'is_owner'.
23
24
```

### Settings:



### Results:

# urls.py



## CI Python Linter

```
"''urls for workstream app'"
    from django.urls import path
    from workstream import views
5 - urlpatterns = Γ
        path('workstream/', views.WorkstreamUserList.as_view()),
        path('workstream/all/', views.WorkstreamList.as_view()),
        path('workstream/leave/', views.GetLeaveWorkstream.as_view()),
        path('workstream/join/', views.WorkstreamInviteList.as_view()),
10
        path('workstream/leave/<int:pk>/', views.LeaveWorkstream.as_view()),
11
        path('workstream/active/', views.ParticipantListActive.as_view()),
12
        path('workstream/participant/', views.ParticipantList.as_view()),
13
        path('workstream/<int:pk>/', views.WorkstreamDetail.as_view()),
14
        path('workstream/participant/<int:pk>/'.
15
             views.ParticipantDetail.as_view()).
16
17
```

### Settings:



#### Results:

# views.py



## CI Python Linter

```
1 '''views for workstream app''
   from rest_framework import generics
    from backend.permissions import IsOwnerOrReadOnly, IsWorkstreamOwnerOrReadOnly
    from .models import Workstream, Participant
    from .serializers import WorkstreamSerializer, ParticipantSerializer
 8 - class WorkstreamList(generics.ListAPIView):
        List all workstreams.
10
11
12
        queryset = Workstream.objects.all().order_by('-created_at')
13
        serializer class = WorkstreamSerializer
14
15
    class WorkstreamUserList(generics.ListCreateAPIView):
17
18
        List all workstreams for current user
19
        serializer_class = WorkstreamSerializer
20
21
22 -
        def perform_create(self, serializer):
23
24
             create workstream with default value for owner
```

### Settings:







### Results: