What is an API?

API is the acronym for *Application Programming Interface*, which is a software intermediary that allows two applications to talk to each other.

What is apiview?

The APIView is the most basic type of view we can use to build our API . It enables us to describe the logic which makes our API endpoint. An APIView allows us to define functions that match the standard HTTP methods: GET , POST , PUT , PATCH , DELETE.

what is rest api?

A REST API (also known as RESTful API) is an application programming interface that conforms to the constraints of REST architecture.

What is generic view?

This class extends rest framework's APIView class , adding commonly required behavior for standard list and details views.

The generic views provided by REST framework allow you to quickly build API views that map closely to your database models. *were developed as a shortcut for common usage patterns.*

What is MIXINS?

The mixin classes provide the actions that are used to provide the basic view behavior. Note that the mixin classes provide action methods rather than defining the handler methods, such as `.get()` and `.post()` , directly. This allows for more flexible composition of behavior.

It is a helper class .we can handle automatically get and post method by   mixin.

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What is viewSet?

to combine the logic for a set of related views in a single class called a ViewSet .

Tow advantage:

1- *Repeated login can be combined into a single class*
2- *By using routers , we no longer need to deal with wiring up the URL conf ourselves.*

A ViewSet class ingerits from APIView, that does not provide any method handlers such as .get() or .post() , and instead provides actions ... .list, create . update etc.

What is ModelViewSet?

The `ModelViewSet` class inherits from `GenericAPIView` and includes implementations for various actions, by mixing in the behavior of the various mixin classes.

The actions provided by the `ModelViewSet` class
are `.list()`, `.retrieve()`, `.create()`, `.update()`, `.partial_update()`, and `.destroy()`.

What is <mark>GenericViewSet?</mark>

The `GenericViewSet` class inherits from `GenericAPIView`, and provides the default set
of `get_object`, `get_queryset` methods and other generic view base behavior, but does not
include any actions by default.

What is <mark>serializer?</mark>

Serializer is a medium for convert the data into JSON format from the model and show the data
frontend.

What is <mark>parser?</mark>

REST framework includes a number of built in Parser classes, that allow you to accept requests with
various media types. There is also support for defining your own custom parsers, which gives you
the flexibility to design the media types that your API accepts.

1- *Formparser*
2- *MultipartParser*
3- *FileUploadParser*
4- *CustomParser*

What is difference between API and REST API?

*The primary goal of API is to standardize data exchange between web services. Depending on
the type of API, the choice of protocol changes. On the other hand, REST API is an architectural
style for building web services that interact via an HTTP protocol*

<mark>*Difference between viewset and generic view*</mark>

While ViewSet extends APIView , GenericViewSet extends GenericAPIView .

<mark>What is difference between APIView and ViewSet?</mark>

*APIView allow us to define functions that match standard HTTP methods like GET,
POST, PUT, PATCH, etc.*
*Viewsets allow us to define functions that match to common API object actions like :
LIST, CREATE, RETRIEVE, UPDATE, etc*

Difference between viewset and mixin?

The method handlers for a ViewSet are only bound to the corresponding actions at the point of finalizing the view, using the . as_view() method. Mixins: The mixin classes provide the actions that are used to provide the basic view behavior