

Difference between MVC and MVT design patterns

1. Model View Controller (MVC) :

It is a software design pattern that is used to implement user interfaces and gives emphasis on separating data representation from the components which interact and process the data.

It has 3 components and each component has a specific purpose:

- This **Model** is the central component of this architecture and manages the data, logic as well as other constraints of the application.
- The **View** deals with how the data will be displayed to the user and provides various data representation components.
- The **Controller** manipulates the Model and renders the view by acting as a bridge between both of them.

2. Model View Template (MVT) :

This is yet another design pattern similar to MVC. It is also used for implementing web interfaces and applications but in contrast to MVC, the controller part is taken care for us by the framework itself.

It has 3 components and each component has a specific purpose:

- This **Model** similar to MVC acts as an interface for your data and is basically the logical structure behind the entire web application which is represented by a database such as MySQL, PostgreSQL.

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S.NO.	Model View Controller (MVC)	Model View Template (MVT)
1.	MVC has controller that drives both Model and View.	MVT has Views for receiving HTTP request and returning HTTP response.
2.	View tells how the user data will be presented.	Templates are used in MVT for that purpose.
3.	In MVC, we have to write all the control specific code.	Controller part is managed by the framework itself.
4.	Highly coupled	Loosely coupled
5.	Modifications are difficult	Modifications are easy
6.	Suitable for development of large applications but not for small applications.	Suitable both small and large applications.
7.	Flow is clearly defined thus easy to understand.	Flow is sometimes harder to understand as compared to MVC.
8.	It doesn't involve mapping of URLs.	URL pattern mapping takes place.
9.	Examples are ASP.NET MVC, Spring MVC etc.	Django uses MVT pattern.