**MVT – Model View Template**

An important concept in Django – MVT/MTV full from Model View Template, but why do we need that. Let’s look at a simple web page as shown below if a user request a web page it can be static page which might have two things 1) Layout of the page and 2) Data. Discuss about the Amazon website and the layouts for basket page, search page, order history page

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These layouts are designed in HTML, CSS and maybe frontend JavaScript and the data will be coming from the database or we can have the static content in the HTML itself where everything will be static. What if you want dynamic content ex: post amazon login every user will see their own feeds/order history which means the data on that page is different for everyone. Here the data is coming from the database.

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So the important things here are data, layout and business logic. If you want to do something on web application and in this web app sometimes we perform some operations. We build the business logic ex: we add a product to amazon cart, which amazon will be doing some processing on their server. So we need to write that code somewhere. Hence we need 3 things which are data, layout and logic. We can write everything or all these things in one page as well.

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Sometimes it is better to separate those things from each other to eliminate the dependencies from one another which we call it as **separation of concerns.** Here we have 3 concerns and we are separating them.

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Hence in software engineering we have different software design patterns and one of them is MVT

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1. Model is for data and this is coming from database and that can be linked with the model object
2. Template is normal HTML, CSS and frontend JavaScript but it will also have **DTL – Django Template Language** can be used if we want to introduce dynamic data in your page.
3. Data will be coming from model object and but who will link this? – and how you will call all these things by providing the navigation somewhere.
4. Ex: user want to fetch data by sending a request and this will go to your web application(ex: consider this as Django web app)
5. You will get a specific file called **Urls** where we will do all the mapping and that navigation will be sent to the **views.** The business logic that which we want to write will be done in views(don’t confuse the views with the page appearance related thing). This views will use the model object and the template(highlighted in yellow). So, what data has to be sent on the template will be decided by view and the connection with the model will be done through view and that’s the importance of the **model view template.** Hence we do separation of templates

Diagram

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Recap: user request 🡪 Django🡪 urls 🡪 view(logic+template+model)

In other frameworks like spring we have a concept called MVC

Diagram

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What django does on left side and similar things done in other frameworks like spring on the right side.

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