

Django:

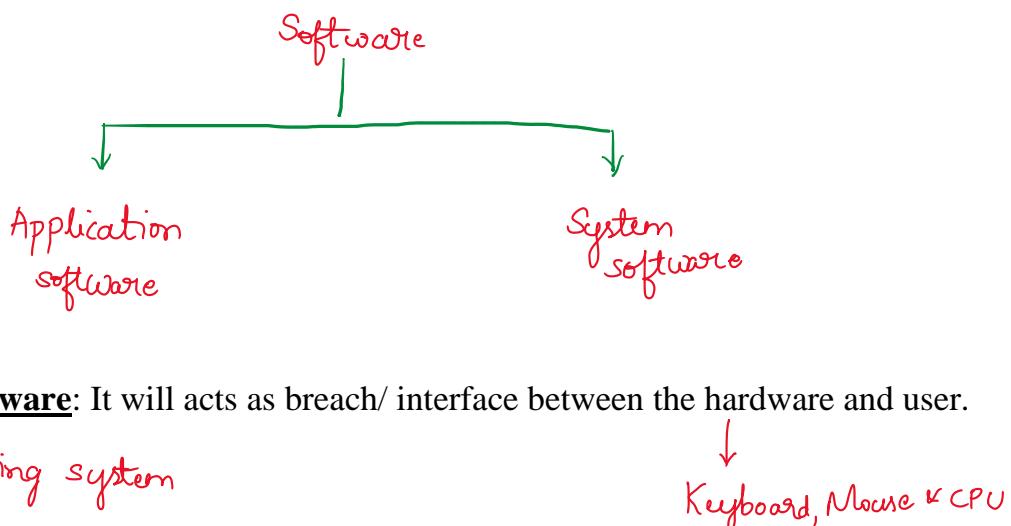
Concepts to complete:

- Python - Functions and class
- HTML - forms
- CSS - (background color, width, height, flex)

Instructions: It is a command given to machine to perform specific task.

Programs: It is an instruction given to machine to perform specific task.

Software: It is a set of programs given to machine to perform operation.



System software: It will act as a bridge/ interface between the hardware and user.

Application Software:

- Standalone application: It doesn't require database and internet connection.
- Mobile application: It requires database and internet connection.
- Client Side and Server Side application:
 - * Needed Internet
 - * Open Browser
 - * Enter URL (Uniform Resource Locator)

Client Side and Server Side application:

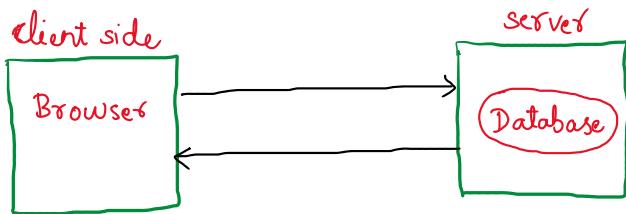
a. Tier 2 architecture:

2 layers \Rightarrow

- * Client side
- * Database

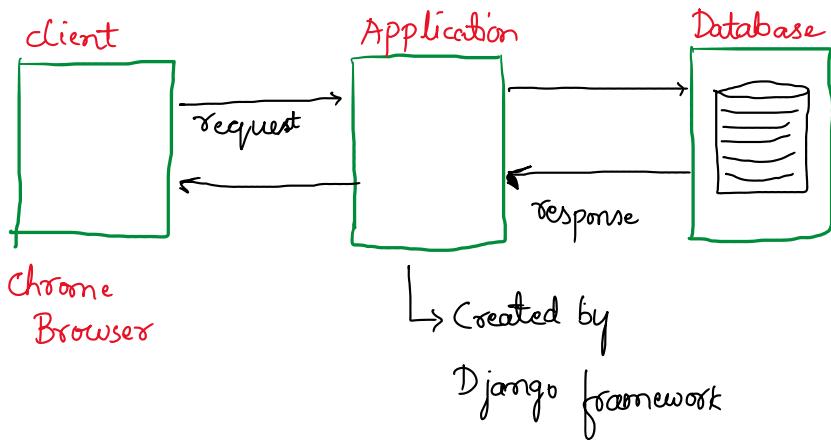
Example :- Google Drive





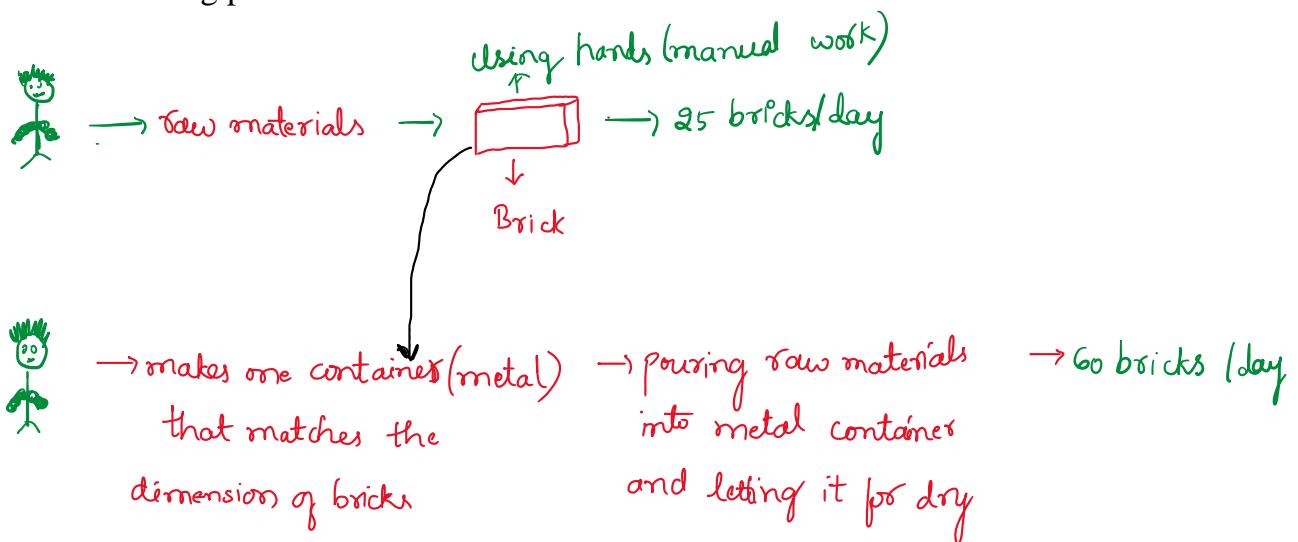
a. Tier 3 architecture:

3 layers → * Client side
 * Application
 * Database



Framework: They provide structure or architecture to build something useful.

Example: Bricks making process.



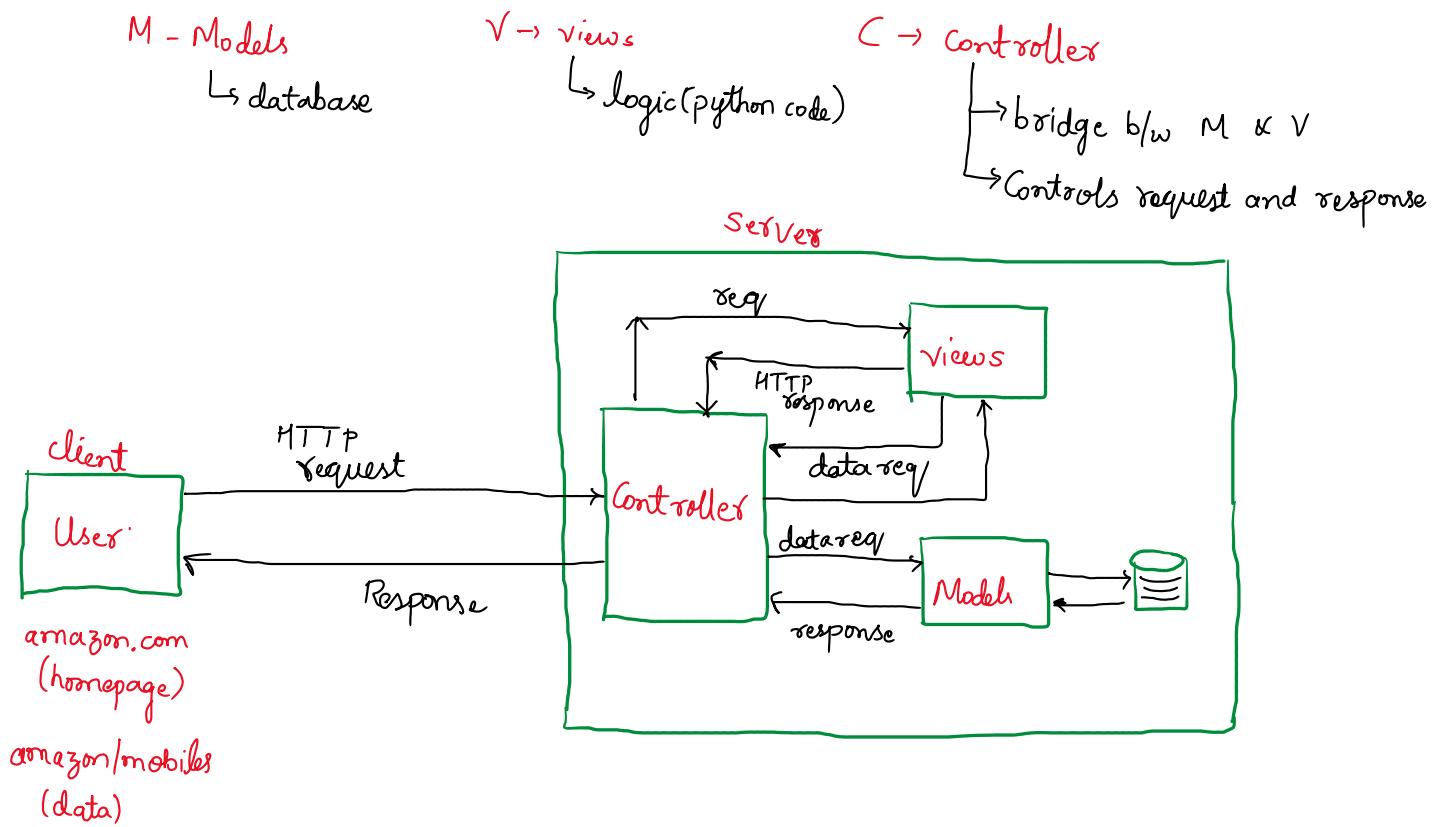
Web Framework: They provide structure or architecture to build web applications/website.

Examples: Angular, spring board, react, django, laravel, flask.

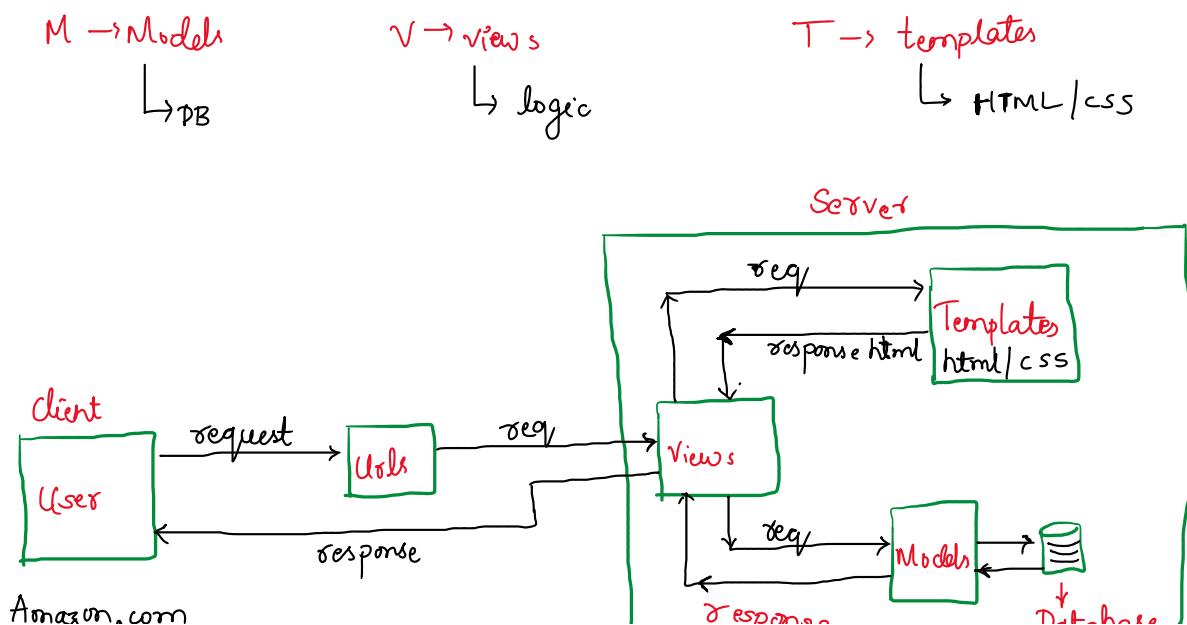
All frameworks follows some architecture:

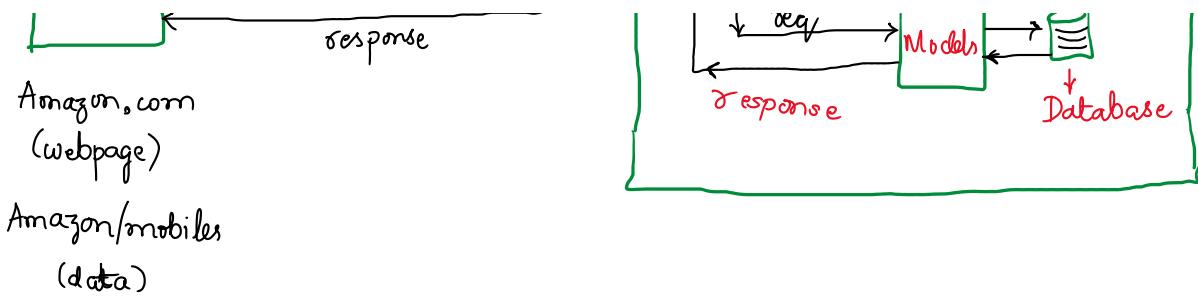
- MVC Architecture - for all frameworks
- MVT Architecture - followed by django framework.

MVC Architecture:



MVT Architecture:



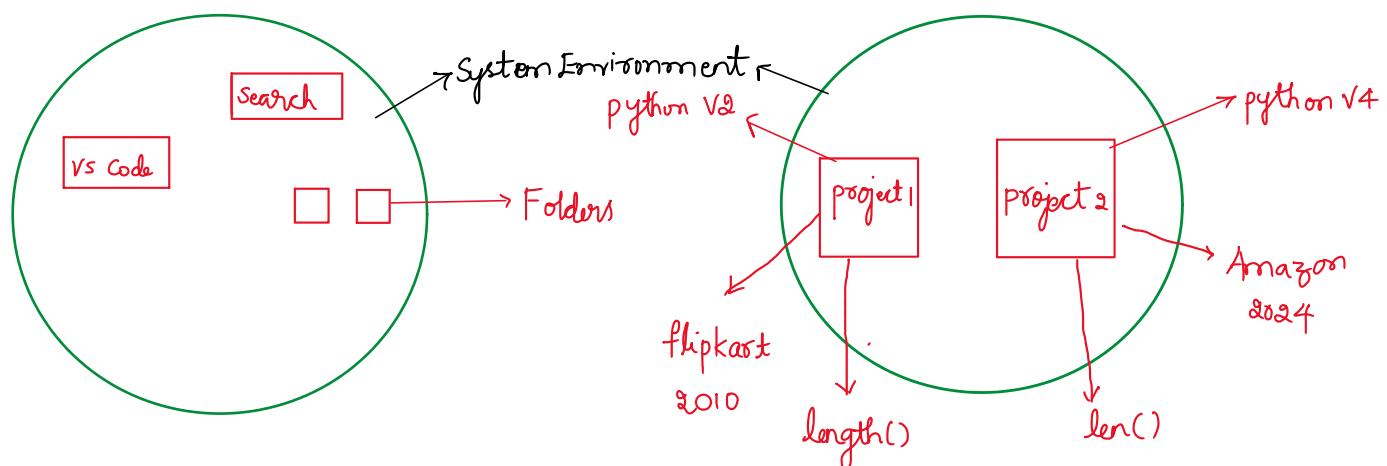


Features of Django:

- **Lightweight** - Compare to other frameworks, django is easy to learn and understand.
Reason: In node.js, if you try to download it will download unnecessary modules and packages.
- **Most secured than any other python based framework.**
- **Using Django - we can make larger project**
Using flask - we can make smaller project.
- **Capable of using it in backend and frontend using templates.**
- **Django is open source/free source.**
- **In django most of the things are inbuilt,**
Example: admin panel, user mode, database.
- **We don't require SQL knowledge.**
Django will convert the python code to SQL queries using ORM(Object Relational Mapping)
- **Inbuilt database is provided**
Dbsqlite3
- **Django.org** - To know more about django.

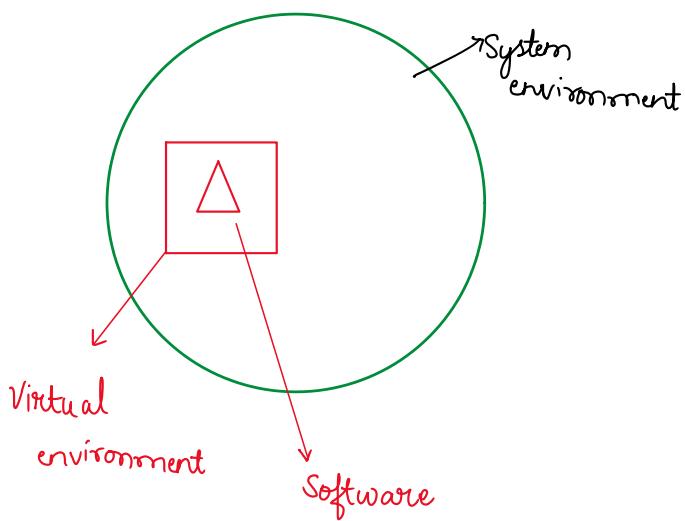
Environments:

1) **System Environment:** They are computer system.

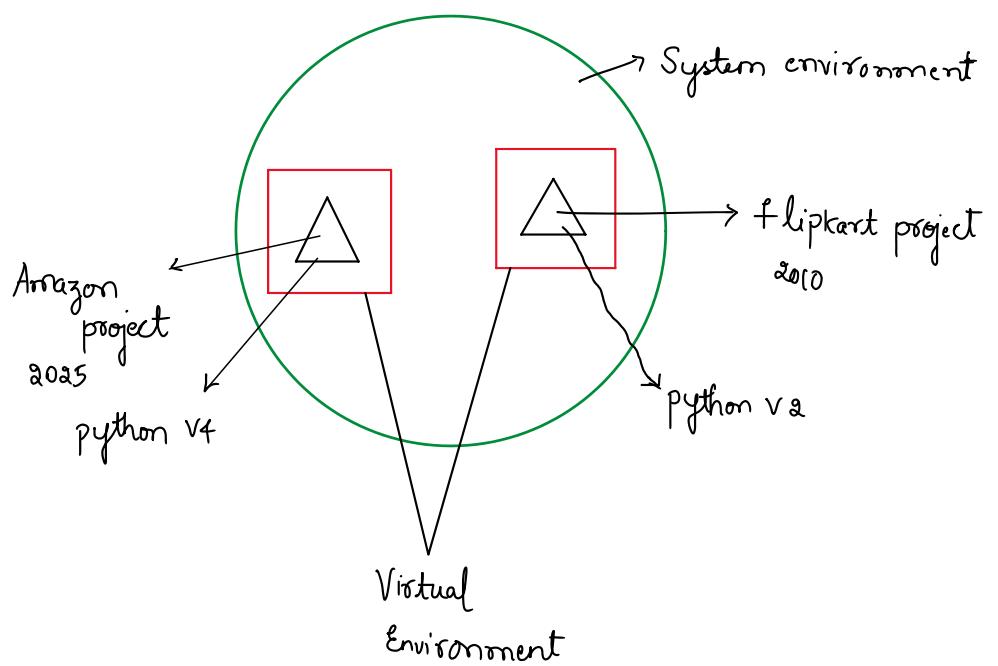


Conclusion : Old python version get over rided with new version. So we cannot control the version of software.

2) Virtual Environment: They are sub-system/duplicate/isolated system inside the system environment.



Note :- When we download a software inside VE we cannot access them outside the VE.



Conclusion : Old python version will not over ride with new version. So we can control the version of software.

