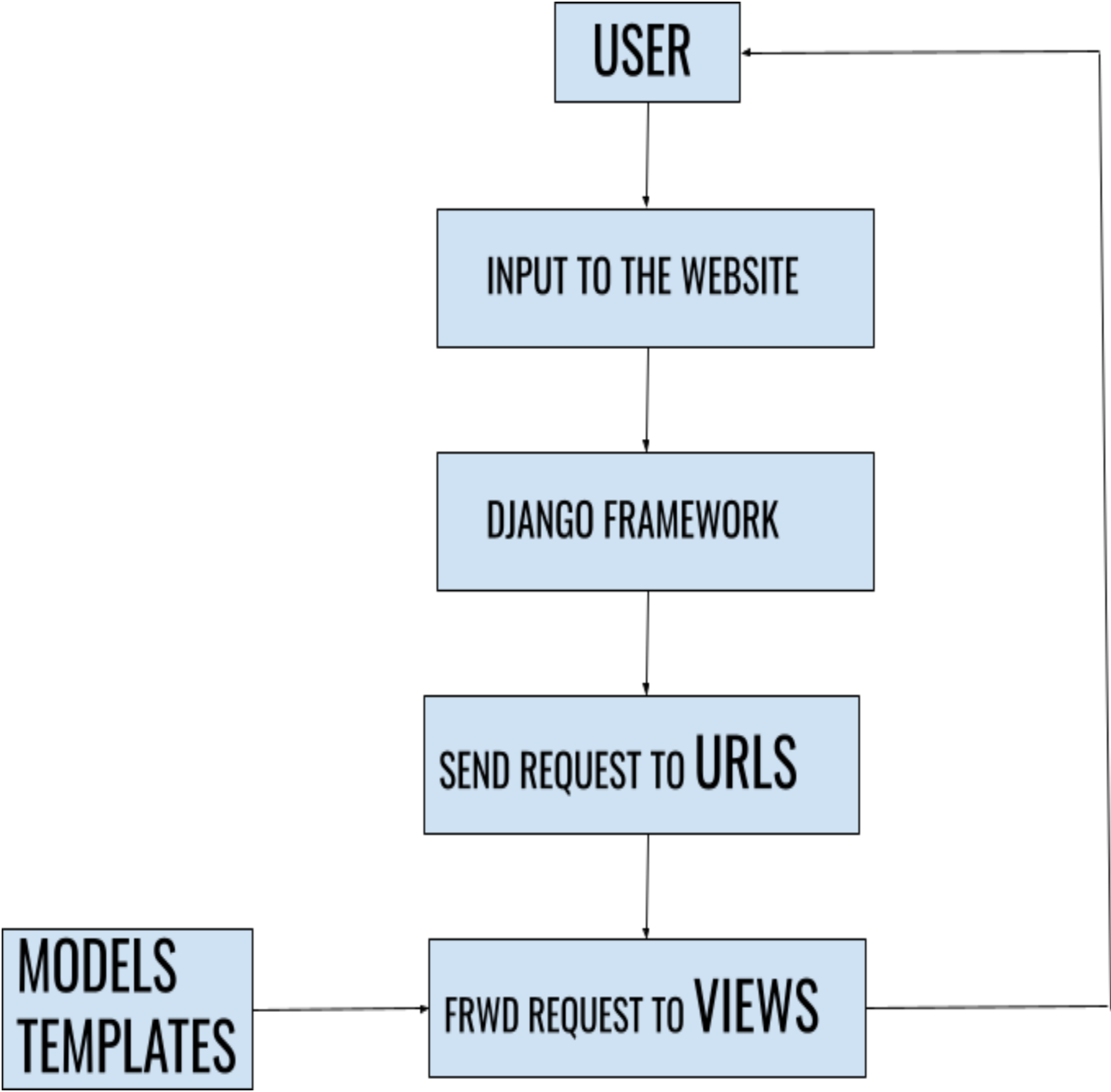
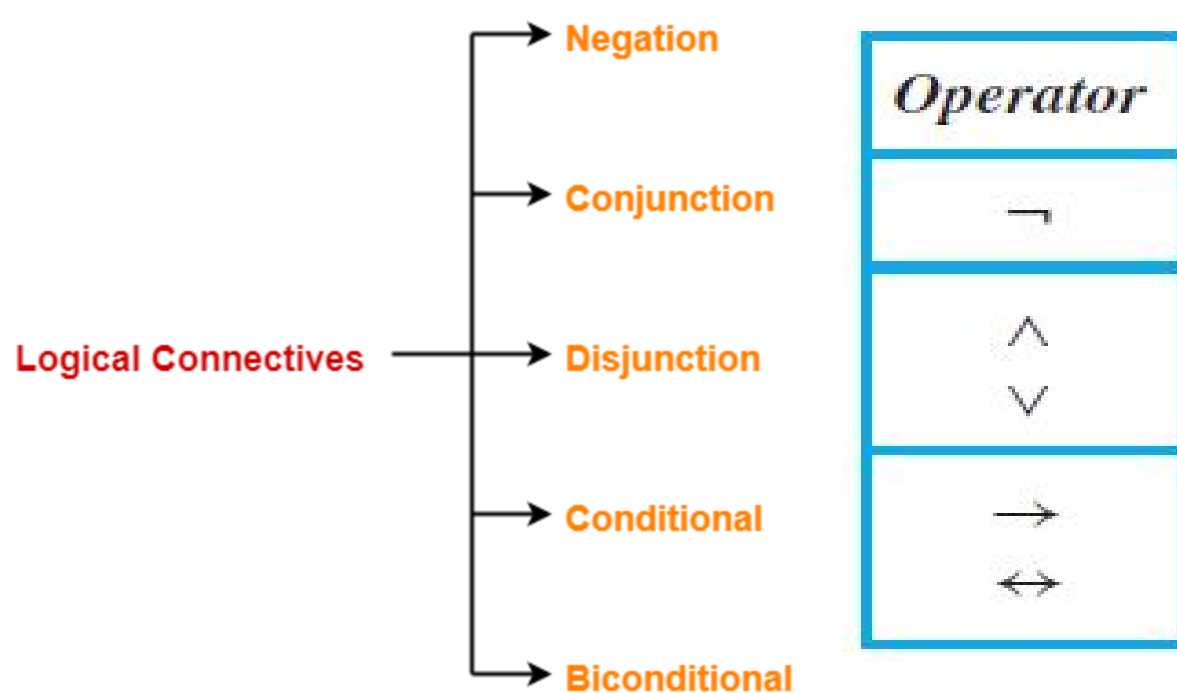


WORKFLOW:-

Rule of Inference	Tautology	Name
$\begin{array}{l} p \\ p \rightarrow q \\ \hline \therefore q \end{array}$	$(p \wedge (p \rightarrow q)) \rightarrow q$	Modus ponens
$\begin{array}{l} \neg q \\ p \rightarrow q \\ \hline \therefore \neg p \end{array}$	$(\neg q \wedge (p \rightarrow q)) \rightarrow \neg p$	Modus tollens
$\begin{array}{l} p \rightarrow q \\ q \rightarrow r \\ \hline \therefore p \rightarrow r \end{array}$	$((p \rightarrow q) \wedge (q \rightarrow r)) \rightarrow (p \rightarrow r)$	Hypothetical syllogism
$\begin{array}{l} p \vee q \\ \neg p \\ \hline \therefore q \end{array}$	$((p \vee q) \wedge \neg p) \rightarrow q$	Disjunctive syllogism
$\begin{array}{l} p \\ \hline \therefore p \vee q \end{array}$	$p \rightarrow (p \vee q)$	Addition
$\begin{array}{l} p \wedge q \\ \hline \therefore p \end{array}$	$(p \wedge q) \rightarrow p$	Simplification
$\begin{array}{l} p \\ q \\ \hline \therefore p \wedge q \end{array}$	$((p) \wedge (q)) \rightarrow (p \wedge q)$	Conjunction
$\begin{array}{l} p \vee q \\ \neg p \vee r \\ \hline \therefore q \vee r \end{array}$	$((p \vee q) \wedge (\neg p \vee r)) \rightarrow (q \vee r)$	Resolution





The form of a *modus tollens* argument resembles a **syllogism**, with two premises and a conclusion:

Not  $Q$ .

If  $P$ , then  $Q$ .

Therefore, not  $P$ .

For example:

The dog did not bark.

If the dog detects an intruder, the dog will bark.

Therefore, no intruder was detected by the dog.

# OUTPUT

The Project is also live in :- [\\_http://rulesinf.pythonanywhere.com/\\_](http://rulesinf.pythonanywhere.com/)

Syllogism SolverRules Of InferenceHome

Hey !! Looks Like You Need Some Help With Syllogism Probelms  
So You Need To Follow Few Simple Rules :  
Use only If , Then , And , Or , Not only

Enter Your premises

Major Premise

Major Premise

Submit

## The Conculsion is

Modus Ponens, Therefore: john will go to work.

## **Steps To Run The Project**

1. Install the modules in "requirements.txt" and run  
"pip install -r requirements.txt".

2. To run this project, Open "command prompt" type

**STEP 1:- cd rulesinf**

**STEP 2:- python manage.py runserver**

**STEP3:- You Can See The Website Live in**

<http://127.0.0.1:8000/>

4. If facing any issues while deploying the application:

<https://help.pythonanywhere.com/pages/DeployExistingDjangoProject/>