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Project Name:Faculty Time Table Generate if teachers were absent using rule Based Approach

...Methodology of Project...

Approach First:Understanding About Rule Based System.

Rule based System is a system which is based on If and Then conditions and give desired Output on the behalf of rule we use for a problem.

IF(Rule antecedant) ----->Then(Output/Rule Consequence)

eg.Lets take a simple example to understand the rule based system

Age	Vote
18	Yes
10	No

According to that table we make a simple human behavoir rule:

```
if(Age>=18){
```

```
Eligible to Vote//Yes
```

```
}
```

```
else or then{
```

```
Not Eligible to Vote//No
```

```
}
```

Approach Second:Understanding about Forward and Backward Chaining

Forward Chaining:Chain or Path to solve a problem by moving 'Forward toward the Goal' based on rule of Problem

In this Chaining 'If Rules ' are used.

**Backward Chaining:Chain or Path to solve a problem by moving backward from goal to start of problem.
In this Chaining ‘then Rules’ are used.**

Approach Third:Designing Algorithm of Faculty Time table

Step 1st:Understanding the Desired Inputs.

Taking details of teachers with respect of their subject and working day.

Step 2nd:Store the details in data Structure called Lists

Step 3rd:Select unique hour for every period Randomly on the behalf of working capacity of teacher by random module,Because it helps to make different result everytime.

Step 4th:The result will display in form of table by the help of **pretty table Module.**

Step 5th:Now,Second thing we need to take input of absent teachers.

Step 6th:

Monday
Teacher 1
Teacher 1
Teacher 1
Teacher 2
Teacher 3

Let assume Teacher 1 is absent and Teacher 2 and Teacher 3 are present at that time.

Step 7:

Monday

Teacher 3

Teacher 3

Teacher 3

Teacher 2

Now, Teacher 3 and Teacher 2
are present on Monday and
Either from Teacher 2 and
Teacher 3 will take the
makeup class of Teacher 1

Step 8:

Do this for all the cases Tuesday, Wednesday, Thursday, Friday, Saturday

**Step 9: If no other teacher will present when any teacher is absent than
there is a holiday will given to students.**

Submitted to: Amandeep kaur.

Github Link: <https://github.com/chetansharma10/Time-table-for-faculty-in-python>

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