

Pseudo Code

1. Get list of m teachers from the user
2. Get list of n class rooms
3. Get daily working hours
4. Get k courses with x classes (like cs101 2+1, cs111 3+0)

5. Make the structure of teacher and in this structure store a teacher_name and the availability matrix with size (working_days x working_hours) whose entries are true if teacher is available and false when teacher is teaching to other class

6. Make the function validate_teacher () which return true if teacher is available

7. Make the structure of course and keep the course name and credit hours with same index as that of teacher_name in teacher structure

8. Make the function of get_course () which return the course name after checking two things
 - If teacher assigned to that particular course is available
 - If credit_hour > 0 of that subject

Before returning course name, assign false to that time in teacher's availability matrix of that teacher (or object) and decrement of the lecture assigned (in case of 2+1 decrement 2 and store remaining 1 in that position)

9. Make the structure of rooms and store room name and take the record if room is assigned to which period to avoid the conflict of assigning two courses at a single time or period
10. We will make the number of room(objects) as that of value of n provided by the user
11. Make the function of validate room to return the room name if room is available to a particular time.
 - i. We can assign all rooms to different teachers at a single time
12. Finally, make the structure of schedule with availability matrix of size (working_days x working_hours)
13. Make the function of generate () which will generate the time table
 - It will loop through all the classes with working hours and start allocating the subjects after getting course name as that of point 8 and assign it to that period (e.g. 1 to 7)