Algorithm

Algorithm is based on genetic algorithm.

Inputs

A structure for course containing:

. name string

. list of subjects

. list of creadits

. room

. total subjects.

. list of subject teachers.

. total no of creadits in a weak

. breaks

. lunch breaks

. list of lab name

. list of lab hours

. list of lab teacher

. total labs

. 2D array for busy of couse

. 2D array for lunch

A Structure for teacher containing

. name

. all subjects

. 2D array

A structure for room

. room name

. all subjects

. 2D array for busy of room

A structure for Tmpsub

. 2D array for tmpsub

A structure for Tmpteacher

. 2D array for tmpteacher

A structure for Finalsub

. 2D array for Finalsub

A structure for Finalteacher

. 2D array for Finalteacher

A structure for Result

. 2D array for result

Algorithm to generate timetable

* The approach taken is “**Schedule By Batch”.**
* Backtracking in 3D way is used.
* A batch is chosen till all batch
* Check whether lunch can fill (if success, fill it)
* If filled, generate next cell block
* else
* Check whether subject can fill(if success, fill it)
* If filled, generate next cell block
* else
* Check whether lab can fill(if success, fill it)
* If filled, generate next cell block
* Else
* Check whether break can fill(if success, fill it)
* If filled, generate next cell block
* If all these conditions false, backtrack and free all entries
* If last cell block is allocated, stop.
* If one batch is successfully allocated, save it.

