

Class schedule:

The schedule class represents the work schedule for a staff member. It has the following private data members:

int staffId: an integer representing the staff member's ID.

vector<string> tasks: a vector of strings representing the tasks the staff member is assigned to for each shift.

vector<pair<time_t,time_t>> shiftTimes: a vector of pairs of time_t values representing the start and end times of each shift.

The public member functions of the schedule class are:

schedule(): a default constructor that initializes staffId to 0, tasks to a vector containing a single empty string, and shiftTimes to a vector containing two pairs of time_t values initialized to the current time.

schedule(int staffId, vector<string> tasks, vector<pair<time_t,time_t>> shiftTimes): a constructor that takes as parameters the staff member's ID, a vector of tasks, and a vector of shift times, and initializes the corresponding data members.

void addTask(const string& task): a function that takes a string representing a new task and adds it to the tasks vector.

void addShift(const pair<time_t,time_t>& shiftTime): a function that takes a pair of time_t values representing the start and end times of a new shift and adds it to the shiftTimes vector.

vector<string> getTasks(int shiftIndex) const: a function that takes an integer representing the index of a shift and returns the tasks assigned for that shift.

pair<time_t,time_t> getShiftTimes(int shiftIndex) const: a function that takes an integer representing the index of a shift and returns the start and end times for that shift.

int getShiftCount() const: a function that returns the number of shifts in the shiftTimes vector.