Low Level Design

<u>Project:</u> Discord Focus Bot

<u>Team Name:</u> The Discordians

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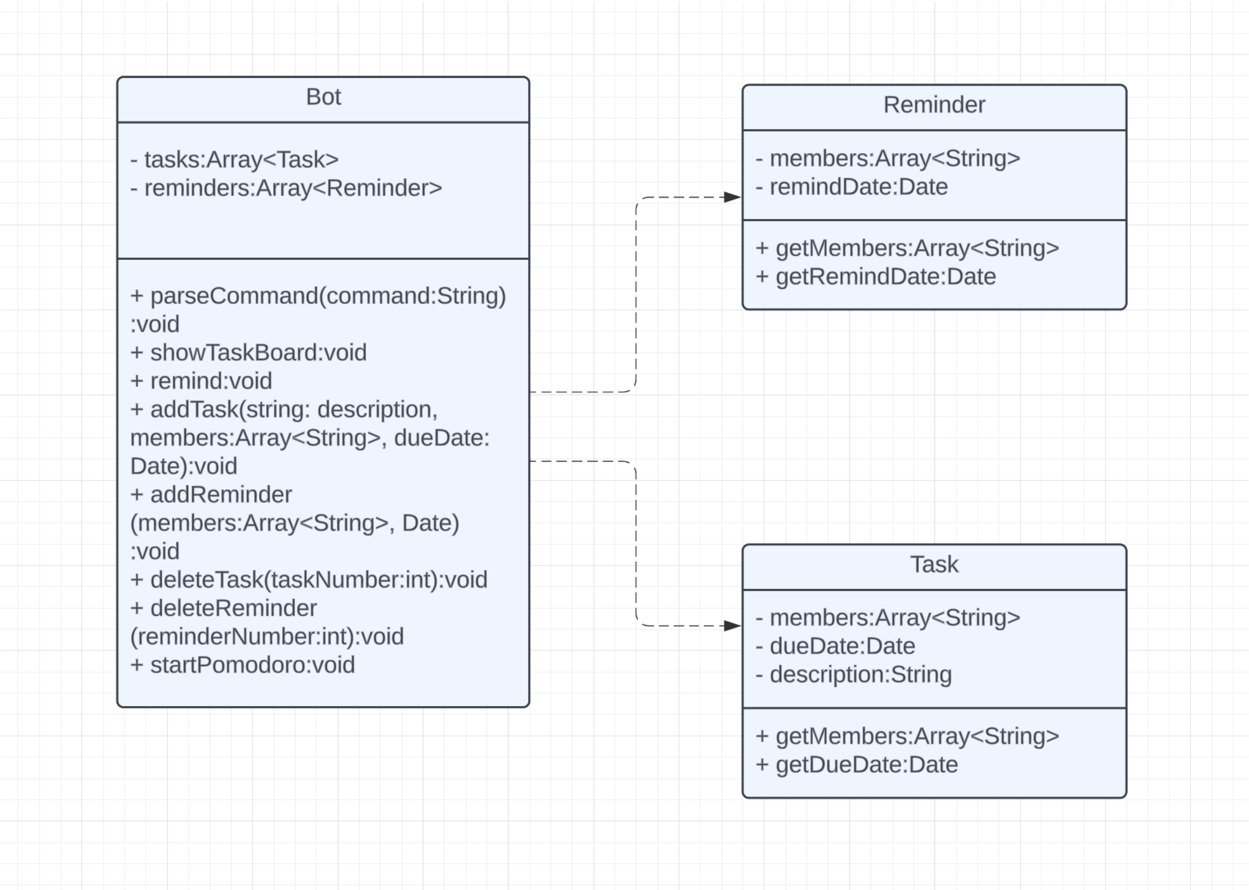
The bot can be represented as an object that is allowed to execute various methods. The bot can have a list of task objects and a list of reminder objects. This would be helpful to represent using a structural model of low level design because this model deals with the composition of classes and objects.

Pseudocode

```
Class Bot {
List<Task> tasks
List<Reminder> reminders
Int pomodoroCount
Int PomodoroDuration
Int break duration
parseCommand(userInputtedCommand) {
    Tokenize userInputtedCommand into command name and arguments
    Switchcase for different command names available:
    Case: addTask
    // create a new task and add it to the bot's task array
        tasks.add(new Task(argument 1, argument 2, argument 3))
    Case: addReminder
    //create a new reminder and add it to the bot's reminder array
    Reminders.add(new Reminder (argument1)
    Case: startPomodoro
    StartPomodoro()
    Case: stopPomodoro
    StopPomodoro()
    // to handle invalid command
    print(“Invalid command”)

    .......
}
Function startPomodoro(){
//if pomodoro timer is not on
If (!isPomodoroOn) {
IsPomodoroOn = true
PomodoroCount++;
// then we start the timer
StartTimer(pomodoroDuration)
} else {
//this is when the pomodoro timer is on
Print(“Pomodoro is currently in session.”)
}
}
Function stopPomodoro(){
//if pomodoro timer is on
If (isPomodoroOn) {
IsPomodoroOn = false
StopTimer()
// then we start the break session
Print (“Pomodoro session ended. Take a break!”)

StartTimer(breakduration)

} else {

//this is when the pomodoro timer is off

Print(“no pomodoro session to stop”)

}

}



Main() {

    Asynchronously accept user inputs and send reminders

    While (true) {

    ParseCommand(userInputtedCommand)

    //If reminder time is reached then

        SendReminder().

    //If git action was taken then

    If (gitActionTaken()) {

    SendGitnotification

        }

    }

}
```

UML Diagram


Bot
- tasks:Array<Task>
- reminders:Array<Reminder>
+ parseCommand(command:String) :void
+ showTaskBoard:void
+ remind:void
+ addTask(string: description, members:Array<String>, dueDate: Date):void
+ addReminder (members:Array<String>, Date) :void
+ deleteTask(taskNumber:int):void
+ deleteReminder (reminderNumber:int):void
+ startPomodoro:void
Reminder
- members:Array<String>
- remindDate:Date
+ getMembers:Array<String>
+ getRemindDate:Date
Task
- members:Array<String>
- dueDate:Date
- description:String
+ getMembers:Array<String>
+ getDueDate:Date