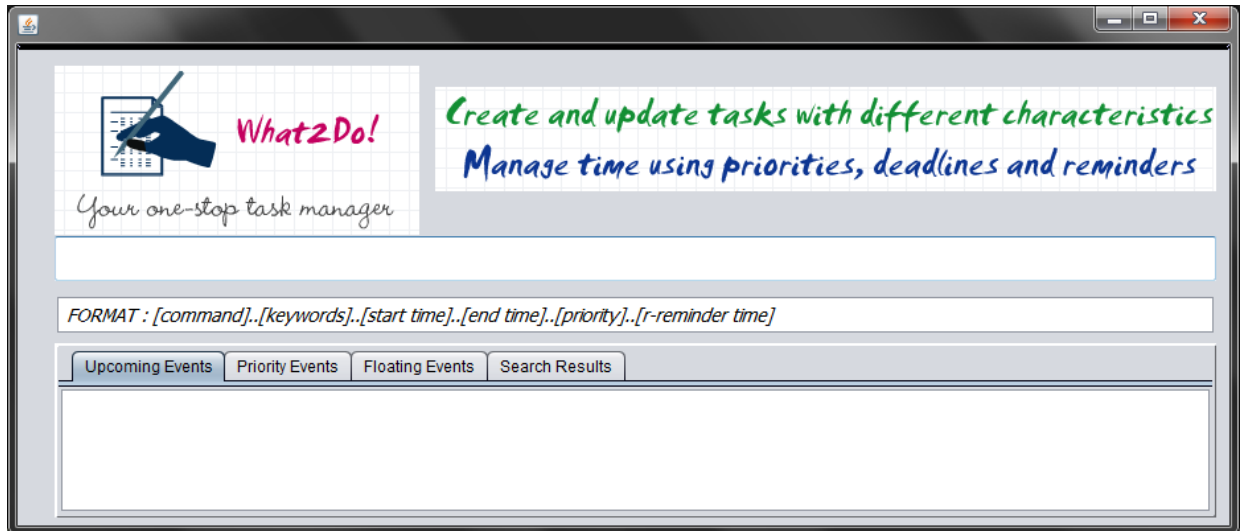






## What2Do!



## Members

			
Akaash Gupta	Sandeep Paul	Le Khac Minh Tri	Anirup Sengupta
Team Lead, Logic Integrator	GUI	Database and Time Analyzing	Executor Class

## CREDITS

We have used the free web-application, LogoMaker to help design our software logo.  
We have also used the Jodatetime library for handling Dates and Times.

## USER GUIDE

**What2Do!** is a text based to-do manager which has several features to make it very easy for the user (i.e. you) to manage their schedule.

### 1. ADDING AN EVENT

You can add an event using the command line interface at the top ( i.e. the bar at the top) by typing in the following format -

Format: [add]..[key words]..[time and date]..[priority]..[reminder

time] Key Words:

You can chose to insert a hash-tag. For example, if the entry is:

*add meeting prof. damith #cs2103..monday 10/9*

The task name would be meeting *prof. damith* and this task would be under the *cs2103* category

The hash tag is

optional. Optional

Components

\*Time and Date: If left blank, then classify the task as floating task.

\*Priority: In case this field is left blank, the system shall assume normal priority (h/high/l/low)

\*Reminder Time: In case left blank, then the system shall not have a reminder for that task.

Examples:

*add..meeting with cs2103 teammates..Sunday 9/9 11 am..2 hours*

*before add..study for cs2103 final exam*

*add..project submission deadline..26/10..high..10 days*

*before add..complete tutorial homework..Sunday 16/9..1*

*day before*

## 2. SEARCHING

You can search for any event using keywords or tags, regardless of whether it is completed or incomplete or even if it has been deleted by typing the following command in the command-line.

The command would be:

[search] [searchwords]

This would result in a point – wise display of all the entries matching the search words.

Example: *search*

*meeting* Results:

1. Meeting with Prof. Damith on Monday, 10<sup>th</sup> September 2012, at 11 a.m. *(High priority so it would appear in red)*
2. Meeting with CS2103 Teammates on Sunday, 9 September 2012 at 1 p.m.
3. Meeting with girlfriend on Tuesday, 11<sup>th</sup> September, 2012 at 8 p.m. *(High priority(duh!))*

Thereafter, you can update or deleted these entries using the following commands: *update* and *delete* and referring to the search result option.

Example:

*delete 2*

This would result in the entry pertaining to meeting with cs2103 teammates being cancelled.

*update 3*

The original entry would appear and you would be free to edit the information. In case of tasks that are completed, you can add a *done* at the end, and this shall result in the task being archived.

### **3. UNDOING OPERATIONS -**

You can undo the last made action/operation by either typing the command *undo* or by clicking on the undo button in the top-right corner of the interface. The *undo* keyword, when entered in the CLI, cancels the previous action and the

system reverts to the previous state.

### **4. SOME FLEXIBILITY IN COMMAND FORMAT**

You shall have the option to use shorthand notations, if you wish to do so. This will make your work easier and faster. Examples:

add: + OR *a*

delete: - OR *d*

search: *s*

update: *u*

### **5. VIEWING CALENDAR**

The *view [type of calendar]* command will show a calendar in the format specified by you.

Example:

*view day* shall display the day's schedule of events.

*view week* shall display the week's schedule of events.

*view month* shall display the month's schedule of events.

## **OTHER GUIDES**

## **1. How to access Help and Troubleshooting -**

You can seek help using the help button. The Help button is available on the top right hand corner of the GUI. Clicking on this button shall link to a new side window opening. This window shall have detailed information pertaining to all the features of our system, as well as instructions on how to use them. Also, provided will be troubleshooting for the software.

## **2. How to use power-search -**

You can do a power-search in the same way as a simple search. This utility is a more comprehensive search engine that “Simple Search”. It allows you to enter words which match only partially (as opposed to wholly in the case of Simple Search) to previously added tasks and display these tasks, allowing you to choose the one that he wants to access.

### Example

*search cs*

shall lead to the display of all tasks which contain “cs” anywhere in the keyword. It is important that you use specific keywords for power search to ensure that you do not get an unmanageable number of results. (Example *search a*)

## **3. Enable Google and Facebook Calendar integration (optional) -**

This can be enabled in the settings option under the File options. You will also be prompted to integrate on first use of the program. This utility has to be enabled by you before it becomes operational. Once so, the utility shall scourge the your Facebook and Google accounts, access their calendars, and incorporate their entries with the What2Do! calendar. In case of clashes in the timeslots, the system shall prompt you for a confirmation before proceeding.

## **4. Suggestions box listing all the possible commands that you can make.**

Right below the CLI, there shall be a “Suggestion Box” which displays the format of the user entry. (Example: [available operations]..[keywords]..[date and time]..[priority]..

## **5. How to use the reminder command - Alarm with snooze intervals -**

While creating a task, you have the option of setting a reminder, which would be in the form of a audio alarm(if the system is running at that time) or a textual reminder. You have the option of setting the time for the reminder – 20 minutes before deadline, 1 day before the meeting etc. See “ADDING AN EVENT” for command syntax example.

**6. How to find empty slots in the timetable -**

In case you are unsure of free timeslots in his schedule, you may use this feature which shall display the nearest available timeslots. You have the option of refining this search by specifying the duration of the desired free timeslot.

**7. How to check if there is a clash with other events -**

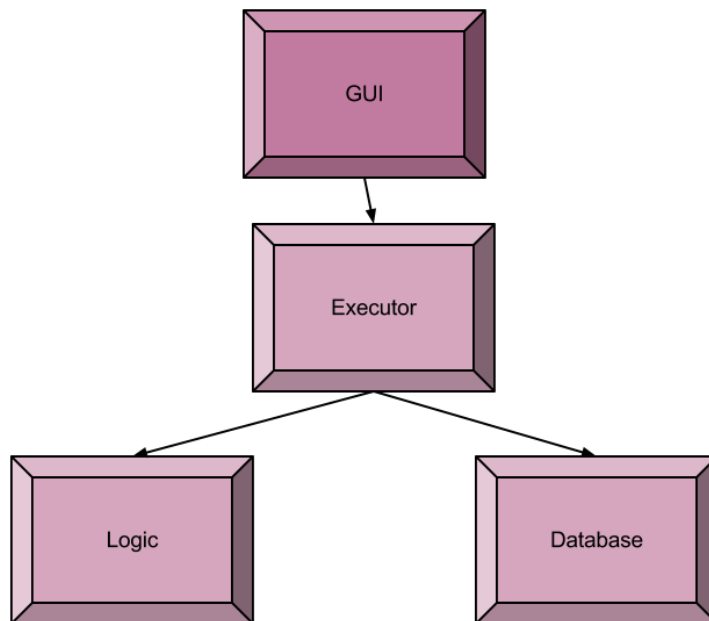
In case you try scheduling two events whose timeslots overlap, the system shall prompt you for a confirmation before proceeding.

**8. Priority based colouring – how to set priority for events -**

At the time of task creation, you shall have the option to set the priority to high (h/H), low(l/L) or normal(n/N)(default). High priority tasks shall be displayed in RED, and low priority ones in YELLOW.

## Developer's Guide

- **Architecture: n-level architecture** – For our project, we chose a n- level architecture with a top-down approach. So, we started building all the components individually and integrated them continuously as we developed the parts individually. Our Architecture can be demonstrated by this diagram –



- **Important APIs:** Listed below are the important APIs of all the classes in a tabular format and what classes they are called by –

1) Logic –

<b><u>Function Name -</u></b>	<b><u>What It Does -</u></b>	<b><u>Called By -</u></b>
<u>getPriority()</u>	Gets the priority specified in the user input	Executor
<u>getKeyWords()</u>	Returns the keywords	Executor
<u>getReminderTime()</u>	Parses the reminder time and returns the number of milliseconds.	Executor
<u>getStartTime()</u>	Returns the start Time as a String	Executor
<u>getEndTime()</u>	Returns the End Time as a String	Executor
<u>getInteger()</u>	Gets the Integer from the delete Command	Executor
<u>getCommand()</u>	Returns the type of command (add, delete...)	Executor
<u>getHashTags()</u>	Returns the List of Hash Tags as a Vector	Executor
<u>getEventID()</u>	This function returns a unique ID for an event by converting the current time to a string of numbers.	Executor



## 2) Executor -

<b><u>Function Name -</u></b>	<b><u>What It Does -</u></b>	<b><u>Called By -</u></b>
<u>analyze()</u>	Analyzes the Input String to get the Command and calls other functions accordingly.	GUI
undoLast()	Undoes the last Action by the User.	Executor.analyze()
analyzeAndSearch()	Analyzes the search Input and performs the search.	Executor.analyze()
analyzeAddInput()	Analyzes the Add parameters and adds to database.	Executor.analyze()
markDone()	Marks a task as Done.	Executor.analyze()
markNotDone()	Marks a task as Undone.	Executor.analyze()
updateEvent()	Updates an event.	Executor.analyze()
printDatabase()	Returns a Formatted String with all the non-floating events in the Database.	GUI
printFloatingDatabase()	Returns a Formatted String with all the floating events in the Database.	GUI
printPriorityDatabase()	Returns a Formatted String with all the non-floating events in the Database sorted in a high to low priority order.	GUI
printSearchResults()	Returns a Formatted String with the search results.	GUI

## 3) ListOfEvent – This is the Database Class.

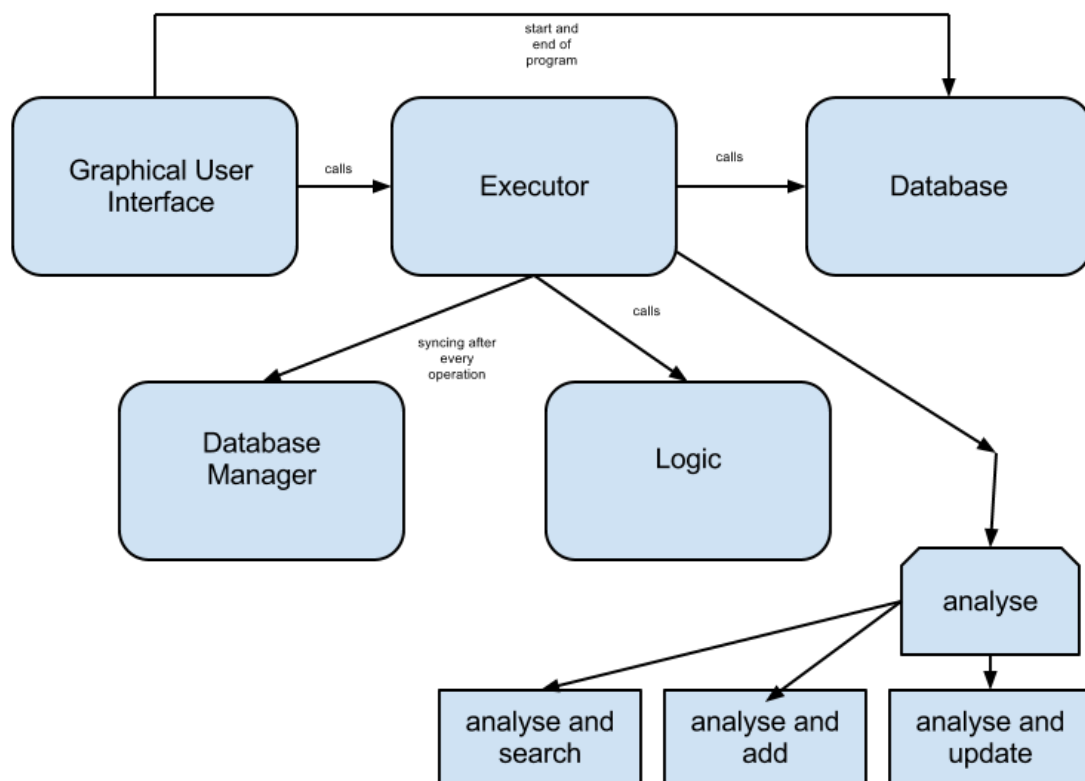
<b><u>Function Name -</u></b>	<b><u>What It Does -</u></b>	<b><u>Called By -</u></b>
syncDataToDatabase()	Writes all data to local database.	GUI, Executor
getCurrentListOfEvent()	Returns the entire Database as a Linked List	Executor
size()	Returns the Size	Executor
markDone()	Marks an event as Done	Executor
markUndone()	Marks an event as Undone	Executor
remove()	Removes an event from the database.	Executor
add()	Adds an event to the database.	Executor
setUpDataFromDatabase()	Loads the events into the program from the local database.	GUI
get()	Returns an event at a particular index.	Executor

## 4) ListOfArchive – This is the List of last actions performed by the User.

<b><u>Function Name -</u></b>	<b><u>What It Does -</u></b>	<b><u>Called By -</u></b>
add()	Adds the last action performed by the user to the Action Archive.	Executor
undo()	Undo's the last action performed by the User.	Executor

- Design Description** - So, the GUI class is the interface between the user and system. The GUI then calls functions in Executor Class to analyse the user Input – to do this, the executor class calls functions in the Logic Class to analyse all the input parameters and get the processed results. The Executor class then calls the database to perform the required tasks. It also adds the last performed task to an Archive of Actions by the user which is used to undo operations. After the control returns to the GUI, it updates all the fields with the new Databases.

The GUI also accesses the ListOfEvents Class to load and write to local databases.



- **Instructions For Testing** – We have done individual unit testing for all the individual parts as well as carried out GUI testing for the implemented functions.