*ListProcessorActual* provides the API for processing the list of Tasks passed by *TaskManagerActual*.

When the user uses the search command, the searchByKeyword(List<Task> list, String keyword) method is called and *ListProcessorActual* will return a list of Tasks containing the specified keyword. This method also allows user to search by date, if the keyword user keys in is identified as date.

The table below lists the examples of searching by dates.

|  |  |
| --- | --- |
| Search By Date | Example |
| Single Date | 4 Nov |
| Multiple Dates | 30 Oct, 1 Nov, 3 Nov |
| A Range Of Dates | 2 Feb to 4 Feb  Between 3 Mar and 6 Mar |

*TaskManagerActual* calls searchByHashtag(List<Task> list, String hashtag) method if the user keys in a hashtag category. *ListProcessorActual* will either return a list of Tasks with the specified hashtag if it is a custom hashtag, or a list of Tasks within the specified category if it is a default hashtag.

The table below lists the default hashtags used in Task Catalyst.

|  |  |
| --- | --- |
| Default Hashtag | Description of the list returned |
| #all (All) | Returns a list of tasks which are not completed. |
| #pri (Priority) | Returns a list of tasks which are marked as priority. |
| #ovd (Overdue) | Returns a list of tasks which are overdue. |
| #tdy (Today) | Returns a list of tasks which are due today. |
| #tmr (Tomorrow) | Returns a list of tasks which are due tomorrow. |
| #upc (Upcoming) | Returns a list of tasks which are due at least two days later. |
| #smd (Someday) | Returns a list of tasks which do not have due dates. |
| #olp (Overlapping) | Returns a list of tasks which are overlapping. |
| #dne (Done) | Returns a list of tasks which are completed. |

**Table 4 – Default Hashtags**

Furthermore, *ListProcessorActual* checks for overlapping tasks.

The table below shows the result which is returned to *TaskManagerActual* when different overlap methods are called.

|  |  |
| --- | --- |
| Overlap Method | Result |
| getOverlapping(List<Task> list) | Returns a list of Tasks which overlap with at least one Task within the list. |
| getOverlapping(Task task, List<Task> list) | Returns a list of Tasks which overlap with the Task passed by *TaskManagerActual*. |

For the sortByDate(List<Task>) method, *ListProcessorActual* will return a list of Tasks which are sorted chronologically to *TaskManagerActual* when it is called.