# Storage



Figure X – Class Diagram of Storage and Dependency

Storage manage the persistency of the list of Task between sessions by utilizing the physical storage. The data stored into the medium is encoded in JSON by utilizing the Gson library. **Figure X** shows the structure of the Storage component and its dependency.

## API

|  |  |  |
| --- | --- | --- |
| Method | Parameters | Description |
| saveFile(List<Task> taskList, String filepath): void | **taskList**: a List<Task> object containing the list of Task to be saved  **filepath**: the path to the file to store the list | Converts the List<Task> object into a JSON encoded string and write it into the specified file.  Throws Error when fail. |
| loadFile(List<Task> taskList, String filepath): List<Task> | **taskList**: an empty   List<Task> object to contain the list of Task loaded  **filepath**: the path to the file to load the list from | Reads the JSON from the specified file and decode it back to Task objects and stores them into taskList which is returned from the method. Returns an empty list if the file does not exist. Throws Error when fail. |

# Google Integration



Figure Y – Class Diagram of Google Integration

Google Integration handles the synchronisation of local data and data from the Google Calendar web service. **Figure Y** illustrates the structure of the Google Integration. QLGoogleIntegration handles the logic of the synchronisation process. GoogleLogin does the authentication process and credential handling and GoogleCalendarConnector acts as a connector to the Google Calendar API.

## API

|  |  |  |
| --- | --- | --- |
| Method | Parameters | Description |
| syncTo(List<Task> taskList): void | **taskList**: a List<Task> object containing the list of Task to be synchronise to Google services | Synchronises to Google services from taskList by adding, updating and deleting events on the service.  Throws Error when fail. |
| syncFrom(List<Task> taskList): List<Task> | **taskList**: a List<Task> object to containing the current tasks | Retrieves events from Google services and updates current taskList to include the events.  Throws Error when fail. |