

To Do List Application

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1. **Idea:** Build a linear layout and a custom layout of item in listview.
Key Method: Especially, for listview, use “SimpleAdapter” which was able to store two subitems in one item of listview. Use an array list of hash map to set adapter.
Accomplishment: The list view can show the title and sub description at center horizontal.

2. **Idea:** Use the function parameter “position” to remove item from the array list, and the text file.
Key Method: Override the function showed in Graph 1. Remove the item with specific position from the list, set the adapter. And using function “Delete (int pos)” to delete the specific line in the text file. The major part of function “Delete (int pos)” is showed in Graph 2.

```
taskList.setOnItemClickListener((parent, view, position, id) {
```

Graph 1

```
while ((line = bufferedReader.readLine()) != null){  
    if (pos-- == 0)  
        continue;  
    bufferedWriter.write(line + System.getProperty("line.separator"));  
}
```

Graph 2

Accomplishment: Remove the item in the list view and also update the text file.

3. **Idea:** When “Add” button is clicked, get title and description that user just input.
Key Method: Override button function, get user’s input and store into hash map, and then store hash map in the array list. On the other hand, open the external storage of the phone and append message into the text file, after adding read and write permission in Androidmanifest.
Accomplishment: Show items in the list view and save them in the text file. When user input nothing in title or in description, toast a message and add nothing in the list view.
4. **Idea:** Read text file first in onCreate function.
Method: Read each line in the text file and store the title and description into hash map. Store the hash map into the array list and set the adapter.
Accomplishment: When the user terminate and reopen the app, the existing list will be loaded and shown in the listview.
5. **Idea:** Add checkbox in the custom layout of listview and set checkbox function in the adapter.
Method: Override “SimpleAdapter” by adding a function of checkbox that same as things when long click an item. The important thing is to make the two delete methods available at the same time, which needs to set the listview layout as showed in Graph 3.

```
android:descendantFocusability="blocksDescendants">
```

Graph 3

Accomplishment: When checkbox is checked, the response item will be deleted directly. And it will also be removed from the text file.