**Pseudocode**

**SpinnerFragment Class**

## Get Spinner Titles Method

Public ArrayList<String> getSpinnerTitles(List<ListItem> itemlist)

Create new ArrayList of Strings stringarraylist

Iterate through List of List Items.

{  
Add list.getTitle to arraylist of strings.

}

Return arraylist of strings.

## Remove Duplicates Method

removeDuplicates(ArrayList<String> list)

Create new ArrayList of strings.

Add all items from ArrayList<String> list from parameter to Hash Set. (Hash set cannot contain duplications.

Addall items from HashSet to new ArrayList of Strings.

Return ArrayList of strings

**CustomOnItemSelectedListener Class**

## Override OnItemSelected method

If(itemselected is “New List”)

{

Create Alert Dialog to display input for user

Create YES or NO options.

If AlertDialog is YES

{

Validate userinput

If (userinput is valid)(Not null space or empty, or special characters)

{

Empty Detail Fragment List.

Add userinput to spinner titles.

Make Selected spinner item userinput

}

Else //Not valid characters

{

Create AlertDialog display “Not valid characters”

}

Else if Alert Dialog = NO

{

Cancel the Alert Dialog.

}

}

Else if(itemselected is “Sample List”)

{

Load Sample List to Detail Fragment

}

Else //itemselected = a list that the user created

{

Create a database reference object.

Look for all list items by title from the database.

Get all list items for the spinner item that was selected.

Update the view for the Detail Fragment to show list to Android GUI.

}

## Get List Item

Get List Items(List<ListItem> listitemlist)

Create new arraylist of strings

Iterate through List of List Items

{

Add the ListItem.getListItem to arrayList of string

}

Return arraylist of strings

## Get List Item From List Title

**getListTitleFromListItems(List<ListItem> itemlist, final String title)**

Create new arraylist of strings

Iterate through itemlist(List of ListItems)

{

If(currentlist.getTitle() does not equal null)

{

If(currentlist.getTitle().equals(title)

{

Add current title to array list of strings.

}

}

Return arraylist of strings

}

## Get List of titles from List Item Objects

GetListTitles(List<ListItem> itemlist)

{

Create new arraylist of strings

Iterate through itemlist(List of ListItems)

{

Add listitem.getTitle() to arraylist list of strings

}

Return arraylist of strings;

}

## Check for duplicates

Check array list of string for duplicates given a string in parameter

Iterate through arraylist of string from parameter.

{

If current string.equals(input from string)

{

Return true

}

}

Return false;