**UMPIRE**

**Understand:**

Make a to-do list application that has the following functions:

* Add new task via typing into a search bar, and hitting the Enter key
* Once a new task is entered, it will appear as a list underneath the search bar
* The listed item can be selected to “complete” the task and remove it from the list
* Long pressing the item list will bring a dialogue box with the option to delete or edit the entry
* Allows users to edit an existing entry
* Allows users to delete an existing entry, which also removes it from the list

Method:

* SQLite to manage a database of tasks
* Link various actions (e.g. selecting checkbox) to their respective functions (e.g. editing entry, completing entry, deleting entry)
* KivyMD for GUI: scroll view, list, text input

Plan:

* Functions:
* A function to establish a connection to database:
* Store database path into a variable: path
* A function to create a new task
* Add record into database
* Store value into a variable: task
* Create a new item in the list
* A function to remove a task when deleted/completed
* Remove record from database
* Remove item widget from list
* A function edit a record
* Update record in database
* Change text in widget item
* Add a new task:
* Create a search bar
* Link search bar’s validate function with a new task function, so it executes when user hits the Enter key
* Store text in search bar into a variable, **task**
* Create connection to database
* Add a new record into the database using the variable above as the value (don’t need to include column names if you put the values in their respective order):

INSERT INTO TABLE\_NAME (column1, column2, column3,...columnN)

VALUES (value1, value2, value3,...valueN);

* Create a new list widget after a new task has been entered. Will need to be done in the Python code itself as opposed to the Kivy file:

self.root.ids.scroll.add\_widget( ListItemWithCheckbox(text=f"Item {i}", icon=icons[i])

I am stuck at this stage. I am able to add a record to the database file. However, I am not able to add to the scroll list due to the scroll ID being in a different class.

* Each list widget will have a left icon for display only, a checkbox on the right, and a long-press feature that opens a dialog box that allows you to select to edit or delete entry:

from kivymd.uix.behaviors import TouchBehavior

class MyButton(MDRaisedButton, TouchBehavior):

def on\_long\_touch(self, \*args):

print("<on\_long\_touch> event")

* Complete a task:
* Bind the checkbox to a function that deletes the task:

checkbox = CheckBox**()**

checkbox.bind**(**active=[function that deletes]**)**

* Delete a task:
* Create connection with database
* Delete record from database:

DELETE FROM table\_name [WHERE Clause]

* Remove corresponding item widget

remove\_widget(*self*, *widget*)

* Edit an entry
* Edit record in database (value=new value, condition=old value):

UPDATE table\_name

SET column1 = value1, column2 = value2...., columnN = valueN

WHERE [condition];

* Edit list widget - not sure how, but perhaps need to refer to the widget and change text value