## **Class- Diagram**

```
user_input_dialog: InputDialog*
             settings_dialog: settingDialog*
             input_handler: QtInputHandler*
             output_handler: QtOutputHandler*
             uv_sim: UVsim*
             conslor_buffer: std::ostringstream
             row_count: int
             instruction_data: std::vector<std::string>
             memory_table: MemoryTableManager*
             line_split: std::string
              MainWindow(Qwidget*)
             ~MainWindow()
                                                                                         SettingsDialog
              write_to_console(const std::string&, bool)
               write_to_console(const Qstring&, bool)
              write_to_console(const char*, bool)
              write_buffer_to_console(bool)
                                                                          -ui: ui::settingDialog*
              closeEvent(QCloseEvent*)
              handle_importButton_clicked()
             handle_exportButton_clicked()
             handle_runButton_clicked()
                                                                           settingDialog(Qwidget* parent)
             handle_settingsButton_clicked(0
                                                                           ~settingsDialog()
             handle_input_from_dialog_window(const Qstring
                                                                           handle_acceptButton_clicked ()
           &input)
                                                                           handle_cancleButton_clicked ()
           +handle_input_from_memory_table(QTableWidgetItem
                                                                           get_gui_color_scheme(): std::tuple<int,</pre>
            *item)
                                                                         int, int, int, int, int>
            handle_input_from_settings(const int&, const
                                                                           keypressEvent(QkeyEvent *event)
           int&, const int&, const int&, const int&, const
           int&)
                                                                                            InputDialog
                                                                          ui: ui:InputDialog*
             MemoryTableManger
                                                                            InputDialog(Qwidget* parent)
 Memory_table_widget:QTableWidget*
                                                                            ~InputDialog()
 Row_cont: int
                                                                           handle_submitButton_clicked()
 Singals_blocked: bool
                                                                            keyPressEvent(QkeyEvent* event)
 data: std::vector<std::string>
                                                                          input_submitted(const QString&)
 MemoryTableManager(...)
 set_row_cont(int)
 update()
 update_headers()
                                                                                                                                                   + clicked() : signal
  set_editable_flag(bool)
 set_block_signals_flag(bool)
 reset_data(size_t, size_t)
 set_data(size_t, const std::string&)
 get_data(): const
|std::vector<std::string>&
  handle_item_changed(QTableWidgetItem*)
 eventFilter(QObject*, QEvent*)
 input_submitted(item: QTableWidgetItem*)
                                                                           QHeaderView
                QTableWidgetItem
                                                          + setVisible(visible: bool)
    setFlags(flags: Qt::ItemFlags)
                                                          + setSectionResizeMode(logicalIndex: int, mode:
    flags(): Qt::ItemFlags
                                                          QHeaderView::ResizeMode)
    setText(text: QString)
                                                           - setSectionsClickable(clickable: bool
    text(): QString
                                                          + setSectionsMovable(movable: bool)
```

MainWindow

ui: ui::MainWindow\*

setTextAlignment(alignment: int)

Ui::SettingsDialog + setupUi(Dialog: QDialog\*) + retranslateUi(Dialog: QDialog\*) - primaryRLineEdit: QLineEdit\* - primaryGLineEdit: QLineEdit\* primaryBLineEdit: QLineEdit\* secondaryRLineEdit: QLineEdit\* secondaryGLineEdit: QLineEdit\* secondaryBLineEdit: QLineEdit\* acceptButton: QPushButton\* cancelButton: QPushButton\* QIntValidator + QIntValidator(bottom: int, top: int, parent: QObject\* = nullptr) QPushButton + connect(sender, signal, receiver, method)

## Relationship:

- MainWindow "has a" SettingsDialog
- MainWindow "has-a" InputDialog
- MainWindow "has-a" MemoryTableManager
- Memory Table Manager "Manages" Q Table Widget