

# Actividad 04 - UI: User Interface

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### Seminario de Algoritmia

#### Objetivo:

El alumno diseñará una UI (User Interface) usando el software Designer de Qt y convertirá el .ui generado a un .py para su ejecución en Python.

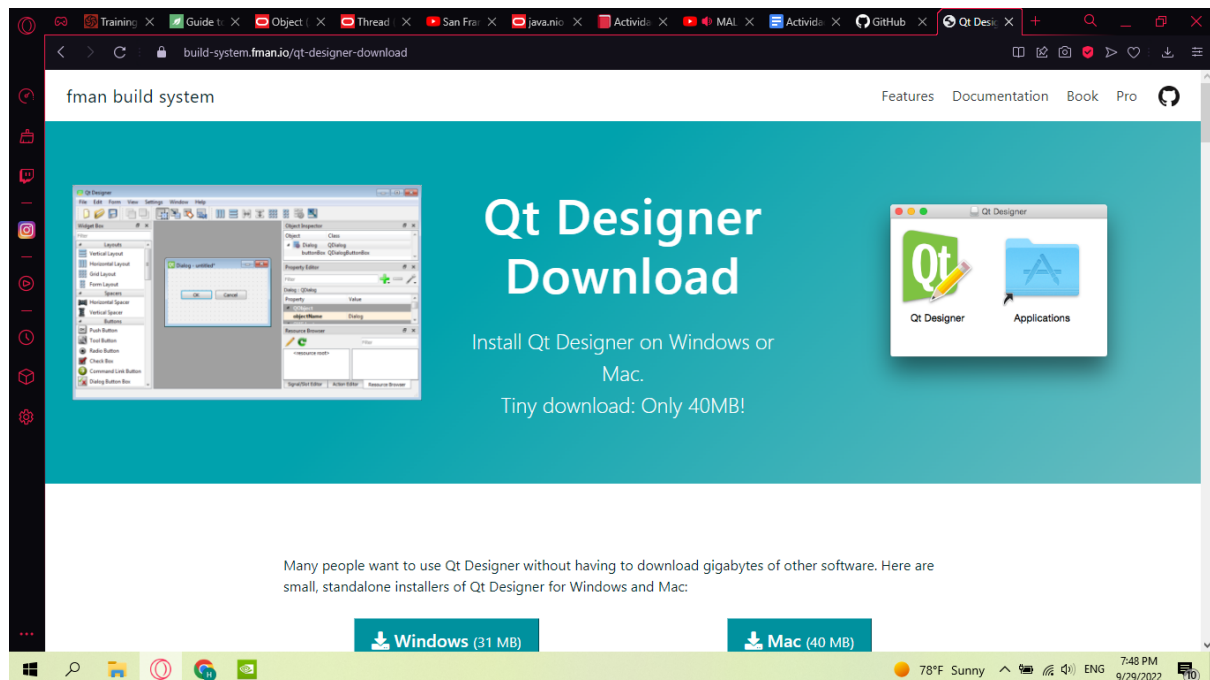
Lo primero que hice fue descargar PyQt5 para poder trabajar con Qt y pathon

```
Microsoft Windows [Version 10.0.19044.2006]
(c) Microsoft Corporation. All rights reserved.

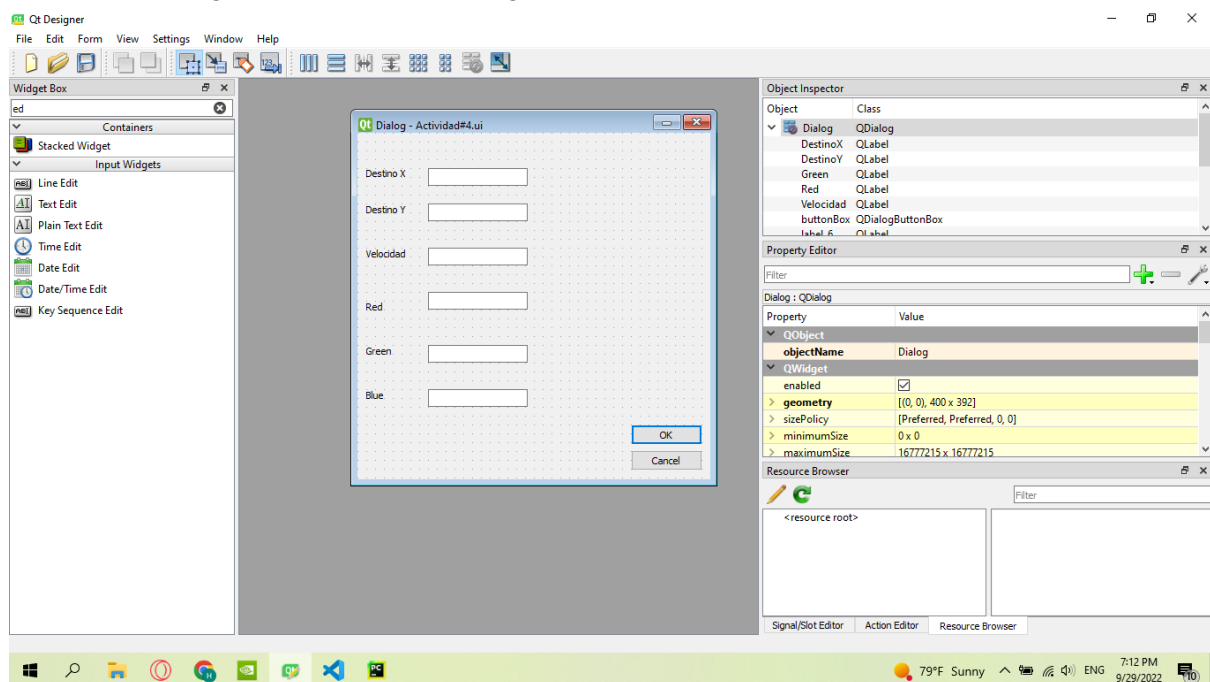
C:\Users\52332>pip install PyQt5
Collecting PyQt5
  Downloading PyQt5-5.15.7-cp37-abi3-win_amd64.whl (6.8 MB)
    ----- 6.8/6.8 MB 9.7 MB/s eta 0:00:00
Collecting PyQt5-sip<13,>=12.11
  Downloading PyQt5_sip-12.11.0-cp310-cp310-win_amd64.whl (78 kB)
    ----- 78.3/78.3 KB 1.4 MB/s eta 0:00:00
Collecting PyQt5-Qt5>=5.15.0
  Downloading PyQt5_Qt5-5.15.2-py3-none-win_amd64.whl (50.1 MB)
    ----- 50.1/50.1 MB 6.2 MB/s eta 0:00:00
Installing collected packages: PyQt5-Qt5, PyQt5-sip, PyQt5
```

```
C:\Users\52332>pip install PyQt5-tools
Collecting PyQt5-tools
  Downloading pyqt5_tools-5.15.4.3.2-py3-none-any.whl (29 kB)
Collecting pyqt5==5.15.4
  Downloading PyQt5-5.15.4.tar.gz (3.3 MB)
    ----- 3.3/3.3 MB 7.2 MB/s eta 0:00:00
```

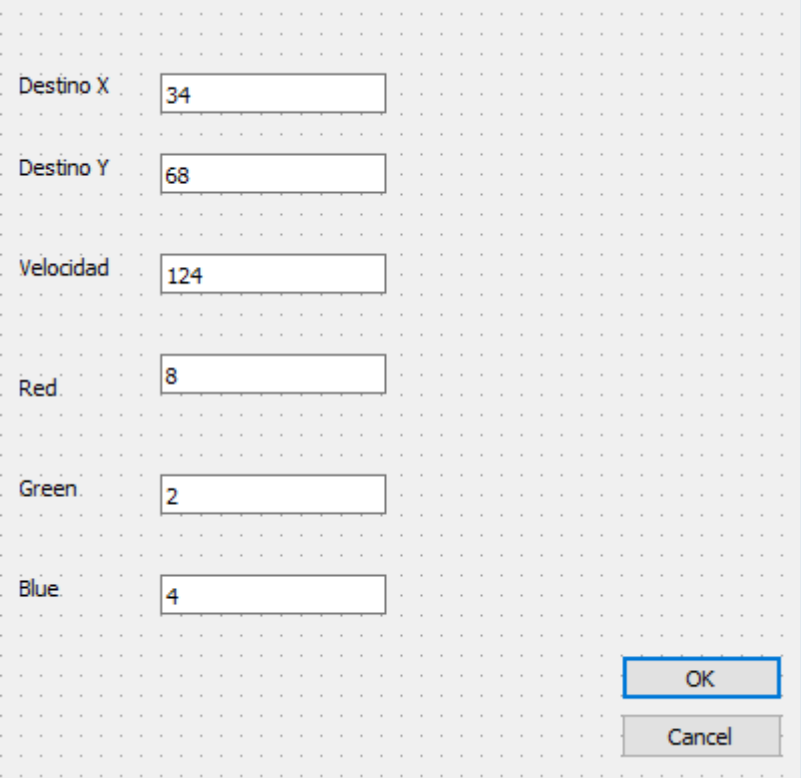
Una vez terminada la descarga e instalación, procedo a descargar Qt Designer para poder crear un UI.



Una vez descargado e instalado el programa procedemos a diseñar la interface



El programa corriendo.



A screenshot of a Qt dialog box with a light gray background and a blue border. The dialog contains six input fields arranged vertically on the left side, each with a label to its left. The labels are "Destino X", "Destino Y", "Velocidad", "Red", "Green", and "Blue". The input fields contain the values "34", "68", "124", "8", "2", and "4" respectively. At the bottom right of the dialog, there are two buttons: "OK" and "Cancel". The "OK" button is highlighted with a blue border.

Label	Value
Destino X	34
Destino Y	68
Velocidad	124
Red	8
Green	2
Blue	4

## Conclusión

Es importante que sepamos cómo programar una interfaz y no solo programar botones si no también programar la interfaz para guardar datos.

## Código:

```
<class>Dialog</class>
<widget class="QDialog" name="Dialog">
  <property name="geometry">
    <rect>
      <x>0</x>
      <y>0</y>
      <width>400</width>
      <height>392</height>
    </rect>
  </property>
  <property name="windowTitle">
    <string>Dialog</string>
  </property>
  <widget class="QDialogButtonBox" name="Guardar">
```

```
<property name="geometry">
  <rect>
    <x>310</x>
    <y>330</y>
    <width>81</width>
    <height>241</height>
  </rect>
</property>
<property name="orientation">
  <enum>Qt::Vertical</enum>
</property>
<property name="standardButtons">
  <set>QDialogButtonBox::Cancel|QDialogButtonBox::Ok</set>
</property>
</widget>
<widget class="QLabel" name="DestinoX">
  <property name="geometry">
    <rect>
      <x>10</x>
      <y>30</y>
      <width>141</width>
      <height>31</height>
    </rect>
  </property>
  <property name="text">
    <string>Destino X</string>
  </property>
</widget>
<widget class="QLineEdit" name="lineEdit">
  <property name="geometry">
    <rect>
      <x>80</x>
      <y>40</y>
      <width>113</width>
      <height>20</height>
    </rect>
  </property>
  <property name="text">
    <string>34</string>
  </property>
</widget>
<widget class="QLabel" name="DestinoY">
  <property name="geometry">
    <rect>
```

```
<x>10</x>
<y>80</y>
<width>47</width>
<height>13</height>
</rect>
</property>
<property name="text">
  <string>Destino Y</string>
</property>
</widget>
<widget class="QLabel" name="Velocidad">
  <property name="geometry">
    <rect>
      <x>10</x>
      <y>130</y>
      <width>47</width>
      <height>13</height>
    </rect>
  </property>
  <property name="text">
    <string>Velocidad</string>
  </property>
</widget>
<widget class="QLabel" name="Red">
  <property name="geometry">
    <rect>
      <x>10</x>
      <y>190</y>
      <width>47</width>
      <height>13</height>
    </rect>
  </property>
  <property name="text">
    <string>Red</string>
  </property>
</widget>
<widget class="QLabel" name="Green">
  <property name="geometry">
    <rect>
      <x>10</x>
      <y>240</y>
      <width>47</width>
      <height>13</height>
    </rect>
```

```
</property>
<property name="text">
  <string>Green</string>
</property>
</widget>
<widget class="QLabel" name="label_6">
  <property name="geometry">
    <rect>
      <x>10</x>
      <y>290</y>
      <width>47</width>
      <height>13</height>
    </rect>
  </property>
  <property name="text">
    <string>Blue</string>
  </property>
</widget>
<widget class="QLineEdit" name="lineEdit_2">
  <property name="geometry">
    <rect>
      <x>80</x>
      <y>80</y>
      <width>113</width>
      <height>20</height>
    </rect>
  </property>
  <property name="text">
    <string>68</string>
  </property>
</widget>
<widget class="QLineEdit" name="lineEdit_3">
  <property name="geometry">
    <rect>
      <x>80</x>
      <y>130</y>
      <width>113</width>
      <height>20</height>
    </rect>
  </property>
  <property name="text">
    <string>124</string>
  </property>
</widget>
```

```
<widget class="QLineEdit" name="lineEdit_4">
  <property name="geometry">
    <rect>
      <x>80</x>
      <y>180</y>
      <width>113</width>
      <height>20</height>
    </rect>
  </property>
  <property name="text">
    <string>8</string>
  </property>
</widget>
<widget class="QLineEdit" name="lineEdit_5">
  <property name="geometry">
    <rect>
      <x>80</x>
      <y>240</y>
      <width>113</width>
      <height>20</height>
    </rect>
  </property>
  <property name="text">
    <string>2</string>
  </property>
</widget>
<widget class="QLineEdit" name="lineEdit_6">
  <property name="geometry">
    <rect>
      <x>80</x>
      <y>290</y>
      <width>113</width>
      <height>20</height>
    </rect>
  </property>
  <property name="text">
    <string>4</string>
  </property>
</widget>
</widget>
<resources/>
<connections>
  <connection>
    <sender>Guardar</sender>
```

```
<signal>accepted()</signal>
<receiver>Dialog</receiver>
<slot>accept()</slot>
<hints>
  <hint type="sourcelabel">
    <x>248</x>
    <y>254</y>
  </hint>
  <hint type="destinationlabel">
    <x>157</x>
    <y>274</y>
  </hint>
</hints>
</connection>
<connection>
  <sender>Guardar</sender>
  <signal>rejected()</signal>
  <receiver>Dialog</receiver>
  <slot>reject()</slot>
  <hints>
    <hint type="sourcelabel">
      <x>316</x>
      <y>260</y>
    </hint>
    <hint type="destinationlabel">
      <x>286</x>
      <y>274</y>
    </hint>
  </hints>
</connection>
</connections>
</ui>
```