Exercise 121:

**Steps to use QHBoxLayout:**

1. **Create a QWidget**:

This is the main container that will hold the layout.

1. **Create a QHBoxLayout**:

Instantiate a QHBoxLayout to arrange the widgets horizontally.

1. **Add Widgets to the Layout**:

Widgets like QLabel, QLineEdit, and QPushButton are added to the layout using the addWidget() method.

1. **Set the Layout to the Main Widget**:

Apply the layout to the parent widget (e.g., QWidget or QMainWindow).

**Example:**

from PyQt6.QtWidgets import QApplication, QWidget, QLabel, QLineEdit, QPushButton, QHBoxLayout, QVBoxLayout

class MainWindow(QWidget):

def \_\_init\_\_(self):

super().\_\_init\_\_()

# Creating the labels and input fields

label\_a = QLabel('Coefficient a:')

lineEdit\_a = QLineEdit()

label\_b = QLabel('Coefficient b:')

lineEdit\_b = QLineEdit()

label\_solution = QLabel('Solution:')

lineEdit\_solution = QLineEdit()

# Creating buttons

button\_solve = QPushButton('Solution')

button\_clear = QPushButton('Clear')

button\_exit = QPushButton('Exit')

# Horizontal Layouts

hbox1 = QHBoxLayout()

hbox1.addWidget(label\_a)

hbox1.addWidget(lineEdit\_a)

hbox2 = QHBoxLayout()

hbox2.addWidget(label\_b)

hbox2.addWidget(lineEdit\_b)

hbox3 = QHBoxLayout()

hbox3.addWidget(label\_solution)

hbox3.addWidget(lineEdit\_solution)

hbox4 = QHBoxLayout()

hbox4.addWidget(button\_solve)

hbox4.addWidget(button\_clear)

hbox4.addWidget(button\_exit)

# Vertical Layout (to stack horizontal layouts)

vbox = QVBoxLayout()

vbox.addLayout(hbox1)

vbox.addLayout(hbox2)

vbox.addLayout(hbox3)

vbox.addLayout(hbox4)

# Set the layout to the window

self.setLayout(vbox)

self.setWindowTitle('First Degree Equation')

# Main entry point

app = QApplication([])

window = MainWindow()

window.show()

app.exec\_()