**Muhammad Abdullah**

**SE(5A) | 19F-0916**

SCD LAB

Assignment # 1 Java and Java-fx

**PROBLEM # 1**

**Solutions:**

Text

Description automatically generated

**ANSWER:** Line # 7 will cause a compilation error because b is out of scope/ not declared outside the if statement.

**PART 2**

Graphical user interface, text, application

Description automatically generated

**ANSWER:** Declare int b; after line 1

Assign b=0; before line 2

Assign b=2; instead of line 3

Assign b= 4; instead of line 5

If we choose the last option, b will initially have default/garbage value it’ll not be a good practice to do so.

**PART 3**

Text

Description automatically generated with medium confidence

public

Void

publisher

setTitle

title

publisher

isbnCode

A picture containing diagram

Description automatically generated

Public,Integer

isbnCode

Integer

**PART 4**

Text

Description automatically generated

**ANSWER:**

1. Book
2. Book
3. Title
4. isbnCode
5. bool

**PART 5**

Text

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

**ANSWER: (A)** public void methodTwo (int i) {}

(B) public void methodFour (int i) {}

**PART 6**

Graphical user interface, text

Description automatically generated

**ANSWER:**

1. **What is GridPane?**

GridPane is like a table, consisting of rows and columns having data in it. GridPane holds number of rows and columns in it to store data. If GridPane have boundaries or Padding set in it, then all of the data will reside in the GridPane, and it’ll not exceed the boundary walls. Simply GridPane lays out its children in a grid of rows and columns. Placement of these children is restricted by the layout constraints. They can overlap by stacking on other children and vice versa.

1. **How to add a new column in the grid?**

As grid is comprised of rows and columns hence, the number of rows and columns can increase or decrease according to the situation of incoming or outgoing data. GridPane automatically increase its size to add more data in it that is why we do not need to specify in start about the rows and columns.

addColumn (int columnIndex, Node Children)

By following this, we can add a new column in the grid if needed.

1. **How to add a Child Control? Give function as well?**

Firstly, we have to make a child to control it. Let us take the example of button here.

Create button with Button button = new Button();

Then set the values for constraints like rows and columns on the GridPane. It can be Rows Constraints or Column Constraints.

After all of that, we can show the button on the grid.

By calling gridpane.getchildren().add(button);

That is how you can make and control the child or children.

**PROBLEM # 1 ENDS HERE**

**PROBLEM # 2 Screenshots**

**Graphical user interface, text, application

Description automatically generated**

**PROBLEM # 3 Screenshots**

* 1. **Exception**

**Graphical user interface, text, application, email

Description automatically generated**

**Char At Function**

**Graphical user interface, text, application, email

Description automatically generated**

**Equal Function**

**Graphical user interface, text, application, email

Description automatically generated**

**SubSequence Function**

**Graphical user interface, text

Description automatically generated**

**PROBLEM # 5 Screenshots**

Graphical user interface, application

Description automatically generated

**CLICKING ON SEARCH**

Graphical user interface, application

Description automatically generated

**CLICKING ON VIEW BOOKS**

Graphical user interface, application

Description automatically generated

**PROBLEM 5 ENDS HERE**