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CSE 1322\L

Assignment 3A

Create a public class that inherits the Application package

Create a private button[4][4];

Create a flag and repeat = 0;

Create a string sample and sample2 which has no string in it;

Create String exp, temp with no string in it

Create Boolean equal;

Create a double checknumber and temporarySum = 0.0;

Create number1, number2, and sum which all = 0;

Create a new object stack;

Create a new object new stack;

Create main method

Launch argument;

End main

Override

Create start with parameter PrimaryStage

Set Titlepane as title;

title.Setvgap and hgap to get the key seperated;

create simplecalculator using textfield;

setalighment as center right;

width: 600

setcolumn by the length of the keyboard;

for loop for i from 0 to 3

for loop j from 0 to 3

button[i][j] = the object of keyboard[i][j];

int x = i;

int y = j;

setaction to button(new EventHandler by Actionevent

override

create method handle(Actionevent e)

if(equal)

simplcalculator clear;

equal would be false;

end if

simplecalulator.appendText(keyboard value[x][y])

exp = simplecalulator.getText().toSti=

end method

end setaction and close it

title.getchild.add(button[i][j])

end for

end for

create action for when the button [3][2] is pressed

create methid checkthestring with parameter temp

if(temp.length()==1)

char ch=temp.charAt(0);

switch (ch)

case '+':

return 1;

case '-':

return 2;

case '\*':

return 3;

case '/':

return 4;

default:

return 5;

end switch case

End if

else

return 0;

end else

end method

override method

create handle method

equal = true;

exp = exp + “\n”;

char[] ch = exp.tocharaaray();

int i = 0;

for(from 0 to ch.length)

if(ch[j] is between 0-9)

i = j

sample = “0”

while(ch[] is between 0-9 and i < ch.length)

if(ch[] is between 0-9)

sample = sample + exp.charAt(i);

i++;

end if

end while

//push any variable to stack, in this case we push the sample

stack.push(sample);

j = i;

end if

else

stack.push(Character.toString(ch[i]));

end else

end for

//remove the recent element from stack

temp = stack.pop();

//initialize the size of the stack

Create int size = stack.size();

//reverse the stack order

while(stack.isNotEmpty() || !stack.isEmpty())

sample2=stack.pop();

newStack.push(sample2);

end while

while(newstack.isEmpty)

//get the first element in the stack and then check the string

temp=newstack.peek();

int type =checkthestring(temp);

if(type =0)

num1 = Double.parseDouble(temp);

newstack.pop();

end if

else if(type =5)

System.out.println("Stack Empty");

flag=2;

break;

end else if

else

int op=checkthestring(temp);

newStack.pop();

temp=newStack.peek();

type =checkthestring(temp);

if(type!=0)

flag=2;

end if

else

num2=Double.parseDouble(temp);

switch(op){

case 1:

temporary\_sum=number1+number2;

case 2:

temp\_sum=number1-number2;

case 4:

temp\_sum=number1\*number2;

end switch case

if(number2 is not = 0)

temporary\_sum=number1/number2;

end if

else

flag=1;

end else

//move the variable from temporary sum to number 1 so that it can be used again

number1 =temporary\_sum;

end else

newstack.pop();

end else

end while

if(flag=2)

simplecalc.setText("Not Valid");

end if

else if(flag=1)

simplecalc.setText("Error: Cannot divide by 0");

end else if

else if(flag=0)

simplecalc.setText(temp\_sum.toString());

end else if

end handle method

End setaction for button[3][2]

// putting the simplecalc screen and title keypad to a layout

layout.setAlignment(Pos.CENTER);

layout.getChildren().addAll(simplecalc, title);

simplecalc.prefWidthProperty().bind(title.widthProperty());

//Show the window of the calculator

stage.setTitle("Simple Calculator");

stage.initStyle(StageStyle.UTILITY);

stage.setResizable(true);

Scene scene = new Scene(layout);

stage.setScene(scene);

stage.show();

end start method

end class