תשובות, עמית מויאל 206086365. מבחן

**שאלה 1:**

**סעיף א:**

מצורף הקוד של קובץ המתודה החדשה.

**MyClass-x.st:**

'From Squeak5.3 of 15 April 2020 [latest update: #19435] on 31 January 2021 at 4:15:12 pm'!!MyClass methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 15:17'!x:anObject (self x = nil or: [anObject = nil]) ifTrue:[ x:= anObject] ifFalse:[((self x isKindOf: anObject class) or:[anObject isKindOf: self x class]) ifTrue:[ x:= anObject]].! !

**סעיף ב:**

מכיוון שבעת השמה דרך חלון האינספקטר מבוצעת ההודעה

replaceSelectionValue

המחליפה את הערך ברשימת משתני המופע במחלקה

Object

ולא מבוצעת המתודה שאנו יצרנו.

**סעיף ג:**

נשנה את הקוד של המתודה

replaceSelectionValue

עבור המחלקה

Inspector.

מצורף הקובץ של הקוד

**Inspector-replaceSelectionValue.st:**

'From Squeak5.3 of 15 April 2020 [latest update: #19435] on 31 January 2021 at 4:14:56 pm'!!Inspector methodsFor: 'selecting' stamp: 'init 1/31/2021 16:12'!replaceSelectionValue: anObject "The receiver has a list of variables of its inspected object. One of these is selected. The value of the selected variable is set to the value, anObject." | basicIndex si instVarIndex | selectionIndex <= 2 ifTrue: [ self toggleIndex: (si := selectionIndex). self toggleIndex: si. ^ object]. instVarIndex := selectionIndex - 2. ((((self object instVarAt:instVarIndex) isKindOf: anObject class) or:[anObject isKindOf:(self object instVarAt:instVarIndex) class]) ifFalse:[|answer| answer:=FillInTheBlank request:'vars are not of the same kind, still accept?' initialAnswer:'yes'. (answer='yes') ifFalse:[^nil ]]). instVarIndex > object class instSize ifFalse: [^ object instVarAt: instVarIndex put: anObject]. object class isVariable or: [self error: 'Cannot replace selection']. basicIndex := selectionIndex - 2 - object class instSize. (object basicSize <= (self i1 + self i2) or: [basicIndex <= self i1]) ifTrue: [^object basicAt: basicIndex put: anObject] ifFalse: [^object basicAt: object basicSize - (self i1 + self i2) + basicIndex put: anObject]! !

**שאלה 2:**

על סעיף א ו-ב עניתי ביחד הקוד מצורף למטה עבור המחלקה

RectsMorph

הערה: ידוע לי שהדרך הנכונה יותר לבצע זאת היא באמצעות ציור מחדש של הצורות ע"י דריסת

drawOn

אך היה לי יותר נוח לבצע זאת באמצעות

Submorphs

הקוד מצורף למטה

**:RectsMorph.st**

'From Squeak5.3 of 15 April 2020 [latest update: #19435] on 31 January 2021 at 5:38:44 pm'!Morph subclass: #RectsMorph instanceVariableNames: 'numOfBoxes isRotate subColor' classVariableNames: '' poolDictionaries: '' category: 'exam-2021a-1'!!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:37'!color: aColor. subColor:=aColor.! !!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:09'!drawOn: aCanvassuper drawOn:aCanvas.self updateBoxes: numOfBoxes.! !!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:19'!handlesMouseDown: anEvent ^true! !!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:37'!initialize super initialize. self extent: 500@400. isRotate:= false. subColor:=Color blue. self updateBoxes: 3. super color: Color transparent.! !!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:21'!mouseDown: anEvent anEvent redButtonPressed ifTrue: [(isRotate) ifTrue:[self stopRotating] ifFalse:[self startRotating]].! !!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:18'!startRotating isRotate:=true. [[isRotate] whileTrue:[ self heading: self heading + 2. (Delay forMilliseconds:100) wait.]]fork.! !!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:17'!stopRotating isRotate:=false.! !!RectsMorph methodsFor: 'as yet unclassified' stamp: 'init 1/31/2021 17:37'!updateBoxes: aNum | rectHeight rectWidth| numOfBoxes:=aNum. rectHeight:=self height/numOfBoxes. rectWidth:=self width/numOfBoxes. self removeAllMorphs. (1 to: numOfBoxes) do:[:i| |rect| rect:= RectangleMorph new. rect extent: rectWidth@rectHeight. rect position: self position + ((rectWidth\*(i-1)) @ (rectHeight\*(i-1))). rect color: subColor. self addMorph:rect.]. self changed. ! !