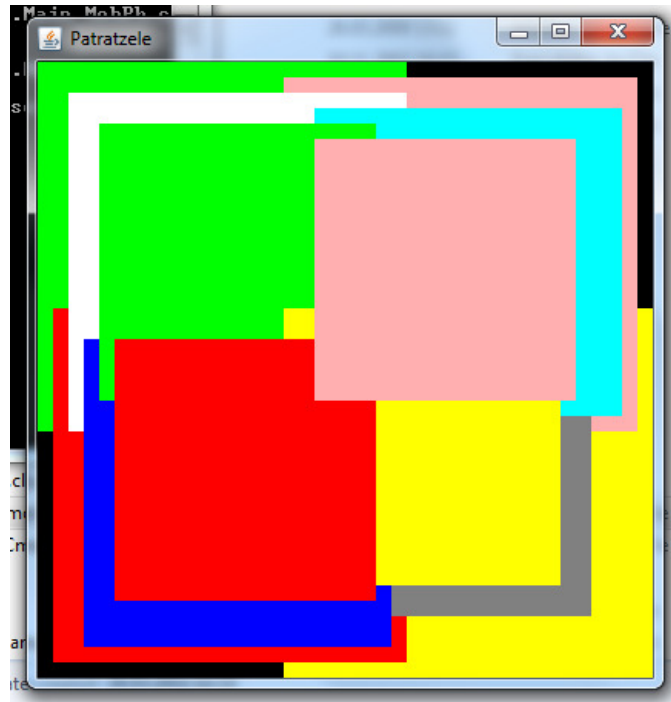


MEDII DE PROGRAMARE IN INTELIGENTA ARTIFICIALA

Java in Jess ☺

Exemplu 1: Un program scris in Jess care deseneaza patrate de diferite culori pe un canvas.



Codul Programului:

```
(deffunction painter (?canvas ?graph)

  (bind ?x (get-member (call ?canvas getSize) width))

  (bind ?y (get-member (call ?canvas getSize) height))

  (?graph setColor (get-member java.awt.Color black))

  (?graph fillRect 0 0 ?x ?y)

  (?graph setColor (get-member java.awt.Color green))

  (?graph fillRect 0 0 240 240)

  (?graph setColor (get-member java.awt.Color yellow))

  (?graph fillRect 160 160 240 240)

  (?graph setColor (get-member java.awt.Color red))
```

```

(?graph fillRect 10 160 230 230)

(?graph setColor (get-member java.awt.Color pink))

(?graph fillRect 160 10 230 230)

(?graph setColor (get-member java.awt.Color white))

(?graph fillRect 20 20 220 220)

(?graph setColor (get-member java.awt.Color gray))

(?graph fillRect 140 140 220 220)

(?graph setColor (get-member java.awt.Color blue))

(?graph fillRect 30 180 200 200)

(?graph setColor (get-member java.awt.Color cyan))

(?graph fillRect 180 30 200 200)

(?graph setColor (get-member java.awt.Color green))

(?graph fillRect 40 40 180 180)

(?graph setColor (get-member java.awt.Color yellow))

(?graph fillRect 160 160 180 180)

(?graph setColor (get-member java.awt.Color red))

(?graph fillRect 50 180 170 170)

(?graph setColor (get-member java.awt.Color pink))

(?graph fillRect 180 50 170 170))

```

```

(deffunction closer (?event)

```

```

  (if (= (call ?event getID) (get-member ?event WINDOW_CLOSING)) then

```

```

    (call (get ?event source) dispose)

```

```

    (call java.lang.System exit 0)))

```

```

(deffunction create-components ()

```

```

  (bind ?f (new java.awt.Frame "Patratzele"))

```

```

(?f addWindowListener (new jess.awt.WindowListener closer (engine)))

(bind ?c (new jess.awt.Canvas painter (engine)))

(?f add "Center" ?c)

(?c setSize 400 400)

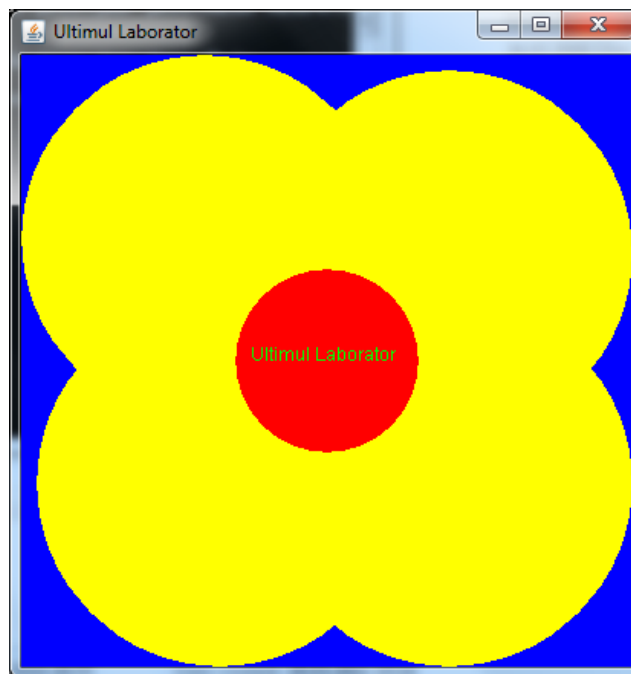
(?f pack)

(?f show))

(create-components)

```

Exemplu 2: Un program scris in Jess care deseneaza folosind obiecte grafice Java.



Codul programului:

```

(deffunction painter (?canvas ?graph)

  (bind ?x (get-member (call ?canvas getSize) width))

  (bind ?y (get-member (call ?canvas getSize) height))

  (?graph setColor (get-member java.awt.Color blue))

  (?graph fillRect 0 0 ?x ?y)

  (?graph setColor (get-member java.awt.Color yellow))

  (?graph fillOval 0 0 240 240)

```

```

(?graph setColor (get-member java.awt.Color yellow))

(?graph fillOval 160 160 240 240)

(?graph setColor (get-member java.awt.Color yellow))

(?graph fillOval 10 160 240 240)

(?graph setColor (get-member java.awt.Color yellow))

(?graph fillOval 160 10 240 240)

(?graph setColor (get-member java.awt.Color red))

(?graph fillOval 140 140 120 120)

(?graph setColor (get-member java.awt.Color green))

(?graph drawString "Ultimul Laborator" 150 200))

;; closer (java.awt.event.WindowEvent)

(deffunction closer (?event)

  (if (= (call ?event getID) (get-member ?event WINDOW_CLOSING)) then

    (call (get ?event source) dispose)

    (call java.lang.System exit 0)))

(deffunction create-components ()

  (bind ?f (new java.awt.Frame "Ultimul Laborator"))

  (?f addWindowListener (new jess.awt.WindowListener closer (engine)))

  (bind ?c (new jess.awt.Canvas painter (engine)))

  (?f add "Center" ?c)

  (?c setSize 400 400)

  (?f pack)

  (?f show))

(create-components)

```

Exemplu 3: Un program scris in Jess care deseneaza folosind obiecte grafice Java.



Codul programului:

```
(import java.awt.*)
```

```
(deffunction painter (?canvas ?graph)
```

```
  (bind ?x (get-member (call ?canvas getSize) width))
```

```
  (bind ?y (get-member (call ?canvas getSize) height))
```

```
  (?graph setColor (get-member java.awt.Color black))
```

```
  (?graph fillRect 0 0 ?x ?y)
```

```
  (?graph setColor (get-member java.awt.Color green))
```

```
  (?graph fillOval 0 0 ?x ?y)
```

```
  (?graph setColor (get-member java.awt.Color yellow))
```

```
  (?graph fillRect 0 (integer (- (/ ?y 2) 10)) ?x 20)
```

```
  (?graph fillRect (integer (- (/ ?x 2) 10)) 0 20 ?y)
```

```
  (?graph setColor (get-member java.awt.Color red))
```

```
  (?graph drawString "Un desen" (integer (- (/ ?x 2) 30)) (integer (+ (/ ?y 2) 5)))
```

```

(?graph setColor (get-member java.awt.Color red))

(?graph fillRect (integer (- (/ ?x 4) (/ ?x 8))) (integer (- (/ ?y 4) (/ ?y 8))) (integer (/ ?x
4)) (integer (/ ?y 4)))

(?graph fillRect (integer (- (* (/ ?x 4) 3) (/ ?x 8))) (integer (- (/ ?y 4) (/ ?y 8))) (integer
(/ ?x 4)) (integer (/ ?y 4)))

(?graph fillRect (integer (- (/ ?x 4) (/ ?x 8))) (integer (- (* (/ ?y 4) 3) (/ ?y 8))) (integer
(/ ?x 4)) (integer (/ ?y 4)))

(?graph fillRect (integer (- (* (/ ?x 4) 3) (/ ?x 8))) (integer (- (* (/ ?y 4) 3) (/ ?y 8)))
(integer (/ ?x 4)) (integer (/ ?y 4)))
)

```

```

(deffunction closer (?event)

```

```

  (if (= (call ?event getID) (get-member ?event WINDOW_CLOSING)) then

    (call (get ?event source) dispose)

    (call java.lang.System exit 0)))

```

```

(deffunction create-components ()

```

```

  (bind ?f (new java.awt.Frame "Desen"))

  (?f addWindowListener (new jess.awt.WindowListener closer (engine)))

  (bind ?c (new jess.awt.Canvas painter (engine)))

  (?f add "Center" ?c)

  (?c setSize 100 100)

  (?f pack)

  (?f show))

```

```

(create-components)

```