

## Declaração do Honor.

• Declaro por mim ho.  
honor que este  
dia gravaa foi  
realizada obras pelas  
elementos que constituem  
o grupo de Profeta:

Declaro por minha honra que  
este dia gravaa foi realizado  
apenas pelos elementos que  
constituem o grupo de profeta:

Sofia Nogueira

Declaro





## Interaction Using Text

- in : Buffered Reader
- out : Print Stream = System.out
- log : Print Stream = null
- write Input : boolean

## + Interaction Using Text()

+ close Down() : void

- <<final>> read Integer (prompt : String) : int

- <<final>> read String (prompt : String) : String

- <<final>> print (text : String) : void

- <<final>> print (text : String) : void

## &lt;&lt;final&gt;&gt; Property Names

+ WRITE - INPUT : String =

"write Input"

+ BOTH - CHANNELS :

String = "both"

+ INPUT - CHANNEL : String

= "in"

+ OUTPUT - CHANNEL :

String = "out"

+ LOG - CHANNEL :

String = "log"

+ ACTION - CHANNEL : String

= "ui"

- Property Names ()

## Menu

- title : String

- commands : Command <?>[]

- ui : Dialog

+ Menu Cui : Dialog, title : String,

commands : Command <?>[]

+ Menu (title : String, commands :

Command <?>[])

+ title() : String

+ size() : int

+ entry (n : int) : Command <?>

+ entries() : Command <?>[]

+ open() : void

## &lt;&lt;abstract&gt;&gt;

Validity Predicate <Receiver>

# - receiver : Receiver

+ Validity Predicate (receiver : Receiver)

+ <<abstract>> is Valid() : boolean

## &lt;&lt;final&gt;&gt; Messages

+ invalid Operation (error : String) -

+ select An Option() : String

+ invalid Option() : String

+ exit() : String

- Messages ()

«abstract»
Command < Receiver>
- last : boolean
- title : String
- receiver : Receiver = null
# - validity Predicate:
Validity Predicate <Receiver> = null
# - fern : Fern
# - display : Display
+ Command (last : double, title : String)
+ Command (last : boolean, title : String, receiver : Receiver)
+ Command (last : boolean, title : String, receiver : Receiver)
+ Command (title : String, receiver : Receiver)
+ Command (title : String, receiver : Receiver, predicate : Validity Predicate <Receiver>)
+ «final» title() : String
+ isLast() : boolean
+ isValid() : boolean
+ «final» perform-command() : void
+ «abstract» execute() : void

«final» Constants
+ MAIN-TITLE : String = "Programação em Objetos"
+ BOOLEAN-WORD-YES : String = "sim"
+ BOOLEAN-WORD-NO : String = "ne"
+ BOOLEAN-CHAR-YES : char = 's'
+ BOOLEAN-CHAR-NO : char = 'n'
+ REGEX-NUMBER-INTEGER : String = "[0-9] +"
+ REGEX-NUMBER-REAL : String = "[0-9] + \\. [0-9] +"
+ REGEX-String : String = ". *"
- Constants()

Dialog
- ACTION-SWING : String = "swing"
- ACTION-TEXT : String = "text"
+ IO : Dialog
- subsystem : Interaction
- Dialog()
+ Dialog (action : Interaction)
+ setTitle (title : String) : void
+ menu (menu : Menu) : void
+ fern (fern : Fern) : void
+ message (d : Display) : void
+ close() : void

«abstract» Dialog Exceptions
~ serialVersionUID : long = 200610291611



Display
- _ui: Dialog - _title: String = "" - _text: String = ""
+ Display() + Display (title: String) + Display (ui: Dialog, title: String) + add (text: String): Display + addLine (text: String): Display + addNewLine (text: String, farea: boolean): Display + getTitle(): String + getText(): String + display (farea: boolean): void + display(): void + popUp (textField: Object, void)

Exception Messages
~ invalidOperation (message: String): String ~ error EOF (eef: EOFException): String ~ error IO (ice: IOException): String ~ error Invalid Number (nfe: NumberFormatException): String ~ error REOF (eef: RuntimeException): String ~ inputError (fnfe: FileNotFoundException): String ~ error ClosingInput (ice: IOException): String ~ invalidNumber (nfe: NumberFormatException): String ~ endOfInput(): String ~ outputError (fnfe: FileNotFoundException): String ~ logError (fnfe: FileNotFoundException): String ~ ErrorMessage()

Fcarn
- _ui: Dialog - _title: String - _entries: List <Input <?>>
+ Fcarn() + Fcarn (title: String) + Fcarn (ui: Dialog, title: String) + title(): String + entries(): Collection <Input <?>> + entry (i: int): Input <?> + add (in: Input <T>): <T> Input <T> + add Boolean Input (label: String): Input < Boolean> + add String Input (label: String): Input < String> + add Float Input (label: String): Input < Float> + add Integer Input (label: String): Input < Integer> + parse(): void + parse (clear: boolean): void + clear(): void

<< abstract >>
Input < Type >
- - prompt : String
- regex : String
- clear : boolean
# _value : Type
+ prompt() : String
# Input()
# Input (prompt: String, regex : String)
+ set (value: Type): void
+ value(): Type
+ clear(): void
# dirty(): void
+ cleared(): boolean
+ <<abstract>> parse (in: String): boolean
+ regex(): String
Input Boolean
+ Input Boolean (prompt: String)
Input Float
+ Input Float (prompt: String)

Input Integer
+ Input Integer (prompt: String)
Input None
+ Input None (prompt: String)
Input String
+ Input String (prompt: String)
<< interface >>
Interaction
+ menu (menu: Menu): void
+ farm (farm: Farm): void
+ message (display: Display): void
+ setTitle (title: String): void
+ close(): void
Interaction Using Applet
- serialVersion UID: long = 201602231556L
- main(): void
- message (s: String, title: String): void

Applet Panel
- serialVersion UID: long = 201602231559L
- opt: int
- _endi: boolean
- inputs : Map<Input<?, JText Field>
- <<synchronized>> sleep (n: int): void
- <<synchronized>> await(): void
- option(): int
- parse(): boolean
~ Applet Panel (m: Menu)
~ Applet Panel (farm: Farm)
~ Applet Panel (s: String, title: String)

Interaction Using Swing
- serialVersion UID: long = 201602231515L
+ Interaction Using Swing()
- message (s: String, title: String)

Swing Panel
- serialVersion UID: long = 201602231557L
- opt: int
- _endi: boolean
- ins: Map<Input<?, JText Field>
- <<final>> lock: Object
- <<synchronized>> sleep (n: int): void
- <<synchronized>> await(): void
- option(): int
- parse(): boolean
~ Swing Panel (m: Menu)
~ Swing Panel (farm: Farm)
~ Swing Panel (s: String, title: String)



## Composite Print Stream

- streams: Collection <Print Stream>
- eager: boolean = false

+ Composite Print Stream()

+ &lt;&lt;final&gt;&gt;add (s: Print Stream): void

## Runtime EOFException

~ serialVersionUID: long = 20061291635L

+ Runtime EOFException()

+ Runtime EOFException (msg: String)

Print Stream



Composite Print Stream



RuntimeException



Runtime EOFException