

<<abstract>>

Command

```
--last: boolean  
--title: String  
#<<final>> _receiver: Receiver  
# _valid: Predicate<Receiver> = receiver -> true  
- <<final>> _form: Form  
#<<final>> _display: Display
```

```
+ <<final>> title(): String  
+ islast(): boolean  
+ isValid(): boolean  
+ addBooleanField(Key: String, prompt: String): void  
+ addRealField(Key: String, prompt: String): void  
+ addIntegerField(Key: String, prompt: String): void  
+ addStringField(Key: String, prompt: String): void  
+ booleanField(Key: String): boolean  
+ realField(Key: String): double  
+ integerField(Key: String): integer  
+ stringField(Key: String): String  
+ <<final>> performCommand(): void  
# <<abstract>> execute(): void
```

Doopun Menu

"know"

Command Exception

Dialog

```

- <<final>> ACTION_CHANNEL: String = "ui"
- <<final>> CHANNEL_SWING: String = "swing"
- <<final>> CHANNEL_NEW_SWING: String = "newswing"
- <<final>> CHANNEL_TEXT: String = "text"
+ UI: Dialog = new Dialog()
- - backend: InteractionDriver
+ open (menu: Menu): Void
+ fill (form: Form): Void
+ render (title: String, text: String): Void
+ close(): Void
    
```

Menu

```

- ui: Dialog
- title: String
- commands: Command<?>[]
+ title(): String
+ size(): int
+ entry (m: int): Command<?>
+ entries(): Command<?>[]
+ open(): Void
    
```

Auto Closeable

<< abstract >>
Field (Type)

- prompt: String
- clean: boolean
- value: Type

+ prompt(): String
+ set(value: Type): void
+ value(): Type
+ clean(): void
+ dirty(): void
+ cleaned(): boolean
+ isReadOnly(): boolean
+ << abstract >> parse(im: String): boolean

<< interface >> Messages

+ KeyAlreadyExists(form: String, key: String): String
+ KeyNotFound(form: String, key: String): String
+ typeMismatch(form: String, key: String, actualType: String, requestedType: String): String

<<interface>> Message

```
+ invalidOperation (annen: String): String
+ invalidOption (): String
+ annEOF (e: EOFException): String
+ annIO (ioe: IOException): String
+ annInvalidNumber (e: NumberFormatException): String
+ errorREOF (e: RuntimeEOFException): String
+ inputError (e: FileNotFoundException): String
+ annClosingInput (e: IOException): String
+ endOfInput (): String
+ outputError (e: FileNotFoundException): String
+ logError (e: FileNotFoundException): String
```

CompositePrintStream

```
- streams: Collection<PrintStream> = new ArrayList()
- ann: boolean = false
~ <<final>> add (ps: PrintStream): Void
```

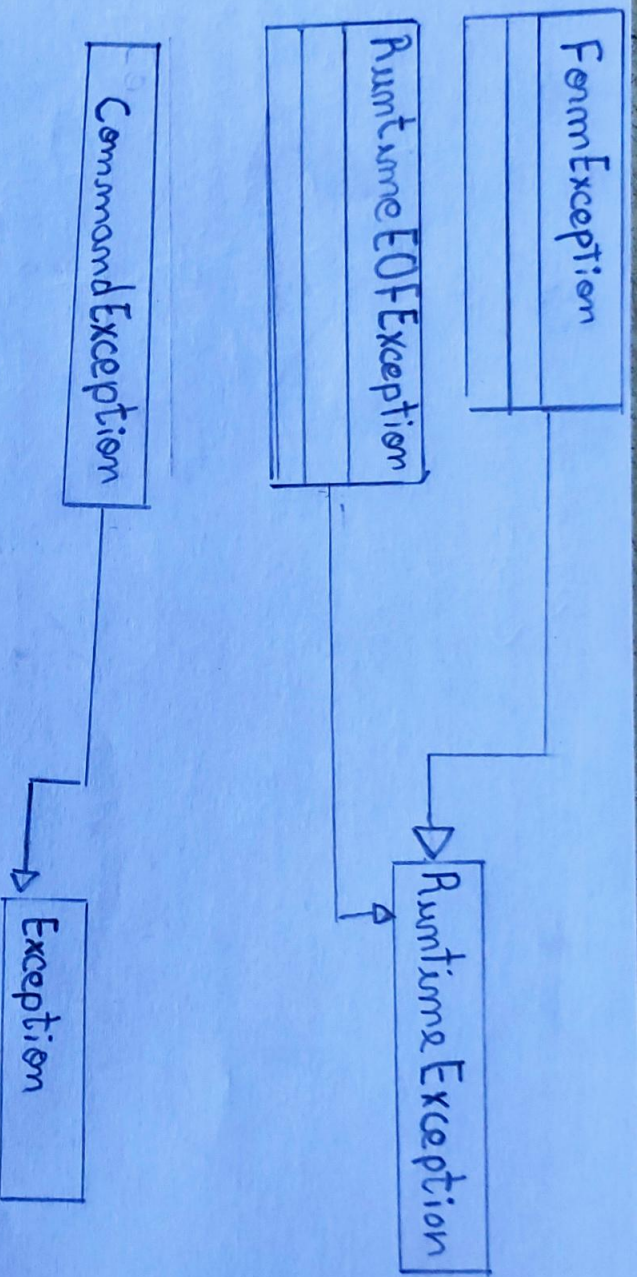
<<interface>> Prompt

```
+ option (): String
+ exit (): String
```


Form

- ui: Dialog
- title: String
- fields: Map<String, Field<?>> = new LinkedHashMap

```
+ title(): String
+ entries(): Collection<Field<?>>
+ field(Key: String): Field<?>
+ add(Key: String, fm: Field<?>): Void
+ addBooleanField(Key: String, label: String): Void
+ addStringField(Key: String, label: String): Void
+ addReadField(Key: String, label: String): Void
+ addIntegerField(Key: String, label: String): Void
+ get(Key: String, type: String): Object
+ booleanField(Key: String): boolean
+ stringField(Key: String): String
+ readField(Key: String): Double
+ integerField(Key: String): Integer
+ parse(): Form
+ parse(clean: boolean): Form
+ clean(): Void
+ confirm(prompt: String): boolean
+ requestInteger(prompt: String): Integer
+ requestRead(prompt: String): Double
+ requestString(prompt: String): String
```

<<interface>> Messages

...: String =

+ operation Failed (reason: String): String

Field Boolean

- <<final>> BOOLEAN_WORD_YES: String = "sim"
- <<final>> BOOLEAN_WORD_NO: String = "no"
- <<final>> BOOLEAN_CHAR_YES: char = 's'
- <<final>> BOOLEAN_CHAR_NO: char = 'm'

Field Integer

Field None

Field Real

+ is read only: boolean

Field String

<< interface >> InteractionDriven

+ open (menu: Menu): void
+ fill (form: Form): void
+ render (title: String, text: String): void
+ close(): void

TextInteraction

- im: BufferedReader = new BufferedReader(
new InputStreamReader(System.in))
- out: PrintWriter = System.out
- log: PrintWriter = null
- writeInput: boolean

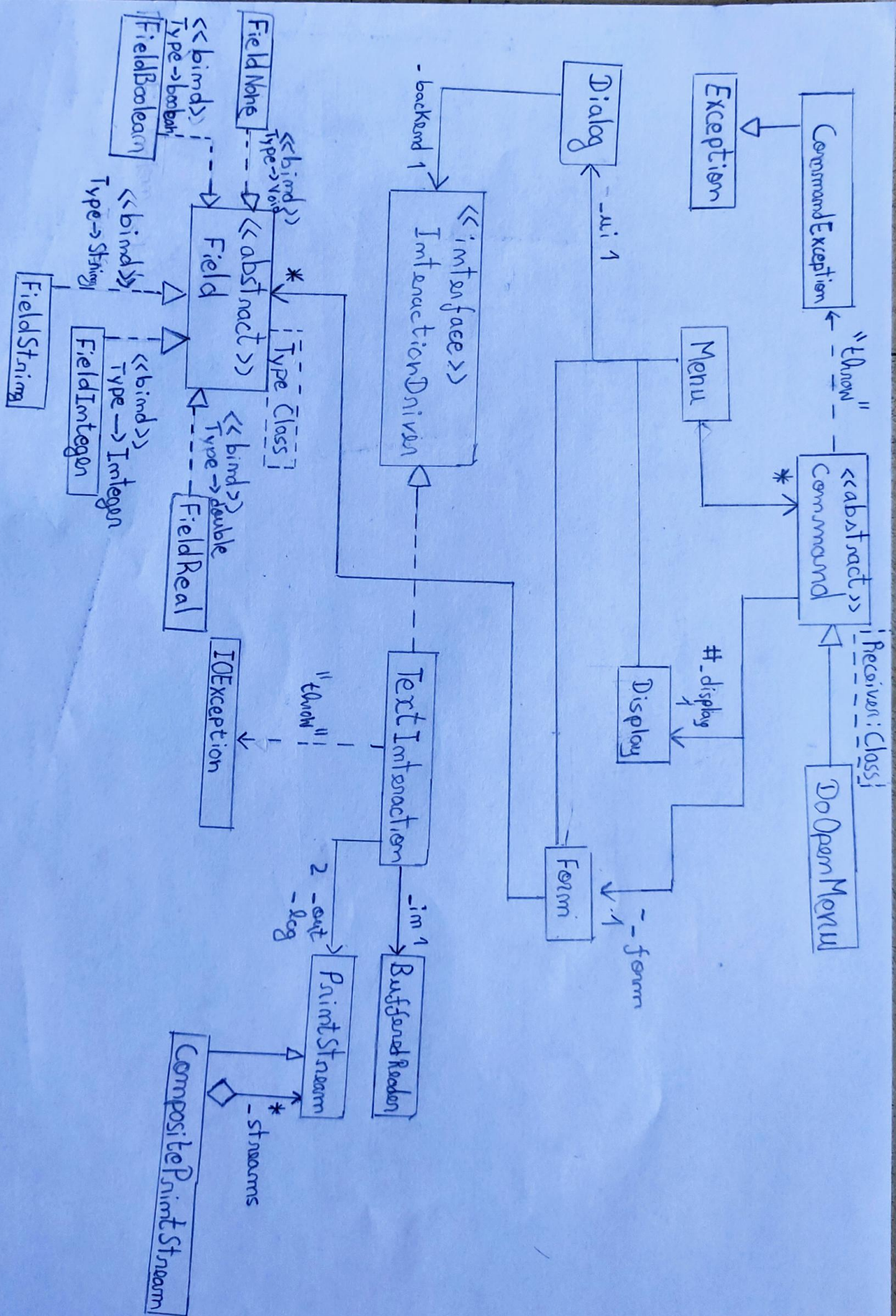
- << final >> readString (prompt: String): String
- << final >> readInteger (prompt: String): int

IOException

<< throw >>

Display

- ui: Dialog
- title: String = ""
- text: StringBuilder = new StringBuilder()
+ add (toAdd: Object): Display
+ addAll (items: Collection<?>): Display
+ addLine (toAdd: Object): Display
+ addNewLine (toAdd: Object, force: boolean): Display
+ display(): void
+ popup (toPop: Object): void
+ popup (toPop: Collection<?>): void
+ clean(): void



Declaro por minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo de projeto.

Artur Monteiro

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Diogo Pereira