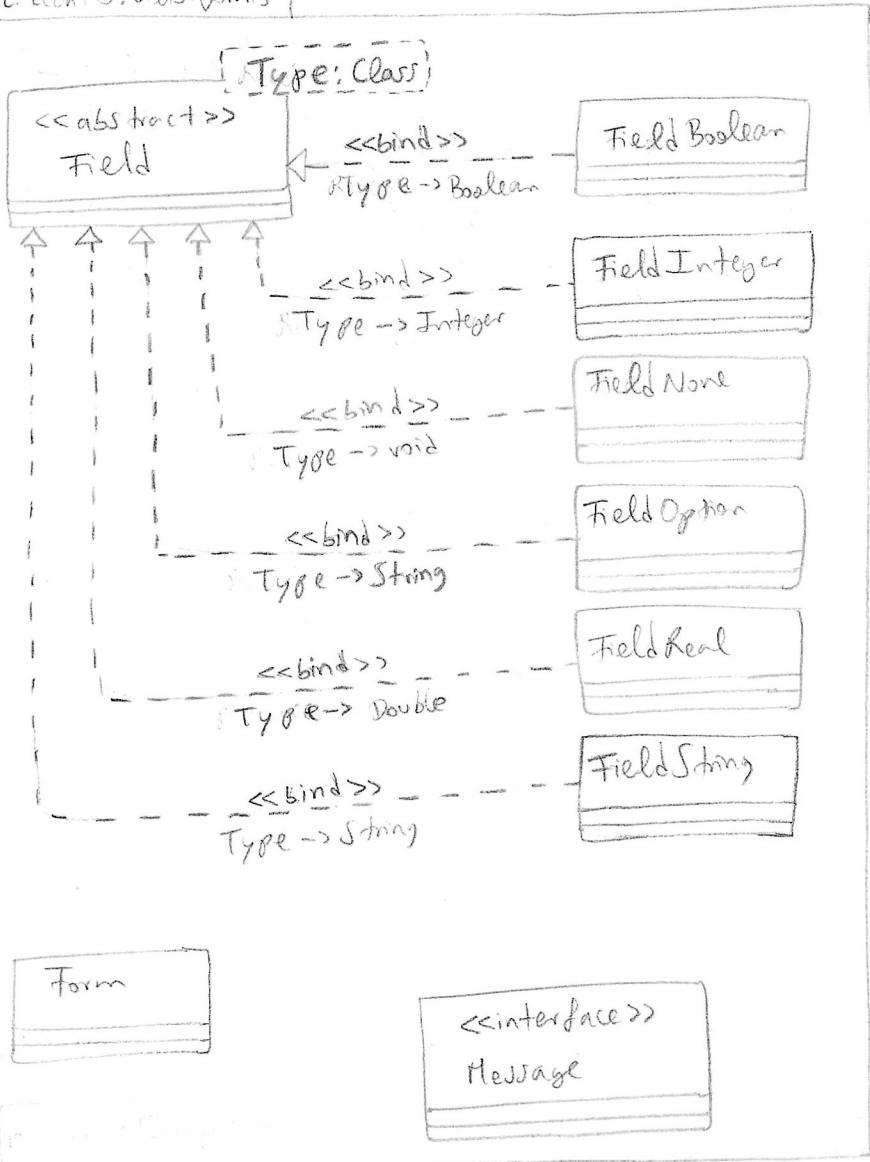
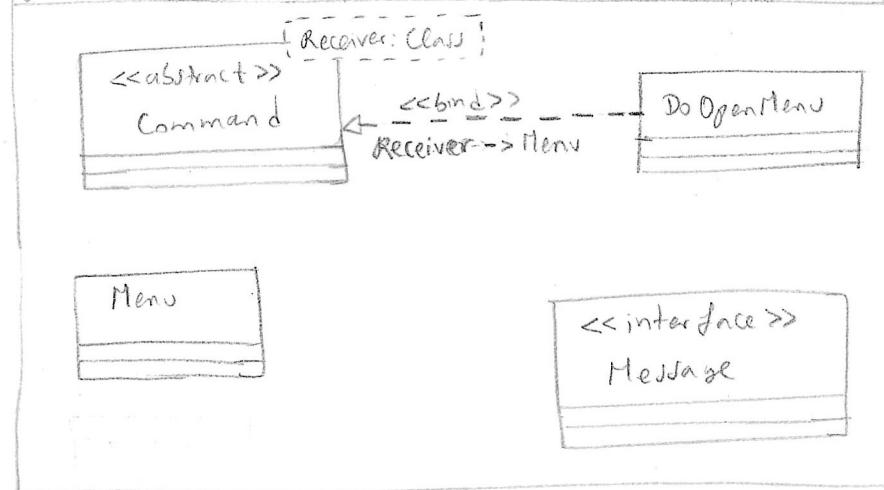


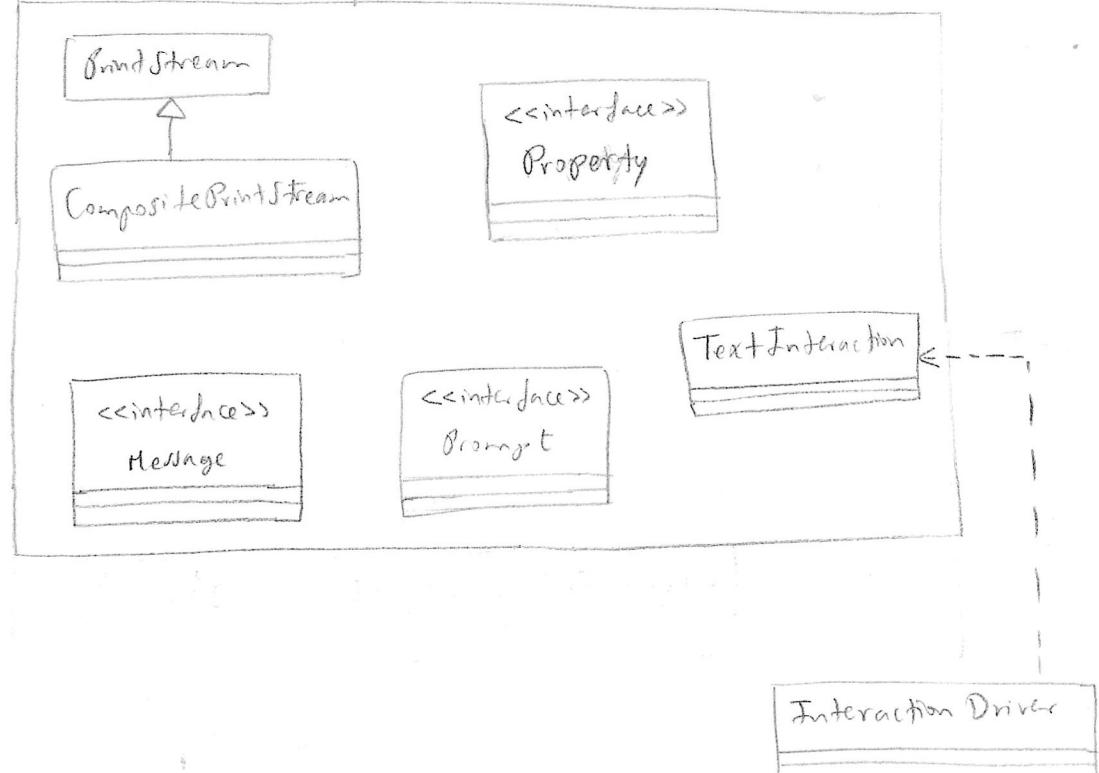
pt.tecnico.vilb.forms



pt.tecnico.vilb.menus



pt.tecnico.vilb.text



opt.tecnico.vilis.forms:

<<abstract>>

Field

- \_prompt : String
- \_clear : boolean
- # \_value : Type

+ value(): Type

+ prompt(): String

+ set(value: Type): void

+ value(): Type

+ clear(): void

+ dirty(): void

+ cleared(): boolean

+ isReadOnly(): boolean

+ <<abstract>> parse(in: String): boolean

Field Boolean

- <<final>> BOOLEAN\_WORD\_YES : String
- <<final>> BOOLEAN\_WORD\_NO : String
- <<final>> BOOLEAN\_CHAR\_YES : String
- <<final>> BOOLEAN\_CHAR\_NO : String

+ parse(in: String): boolean

Field Integer

+ parse(in: String): boolean

<<interface>>  
Message

+ keyAlreadyExists(form: String, key: String): String

+ formNotFilled(form: String): String

+ keyNotFound(form: String, key: String): String

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

FieldNone

- + value(): Type
- + parse(in: String): boolean
- + isReadOnly(): boolean

FieldOption

- + value(): Type
- + parse(in: String): boolean

FieldReal

- + parse(in: String): boolean

FieldString

- + parse(in: String): boolean

Form

- \_ui : Dialog

- \_title : String

- \_fields: Map<String, Field<Type>>

+ get(Key: String, type: String): Object

+ title(): String

+ entries(): Collection<Field<Type>>

+ field(Key: String): Field<Type>

+ add(Key: String, in: Field<Type>): void

+ addBooleanField(Key: String, label: String): void

+ addStringField(Key: String, label: String): void

+ addIntegerField(Key: String, label: String): void

+ addOptionField(Key: String, label: String, options: String...): void

+ booleanField(Key: String): Boolean

+ stringField(Key: String): String

+ optionField(Key: String): String

+ realField(Key: String): Double

+ integerField(Key: String): Integer

+ parse(): Form

+ parse(clear: boolean): Form

+ clear(): void

+ confirm(prompt: String): Boolean

+ requestInteger(prompt: String): Integer

+ requestReal(prompt: String): Double

+ requestString(prompt: String): String

+ requestOption(prompt: String, options: String...): String

• pt.tecnico.ulib.menus:

  <<abstract>>

  Command

  - \_last: boolean

  - \_title: String

# <<final>> \_Receiver: Receiver

# \_valid: Predicate <Receiver>

- <<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

+ addOptionField (Key: String, prompt: String, options: String...): void

+ booleanField (Key: String): Boolean

+ realField (Key: String): Double

+ integerField (Key: String): Integer

+ stringField (Key: String): String

+ optionField (Key: String): String

+ <<final>> performCommand(): void

# <<abstract>> execute(): void

DoOpenMenu

+ <<final>> execute(): void

Menu

- \_ui: Dialog

- \_title: String

- \_commands: Command <?> [ ]

+ title(): String

+ size(): int

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

+ entries(): Command <?> [ ]

+ open(): void

<<interface>>

Message

+ operationFailed(error: String): String

apt.tecnico.ulib.text:

### CompositePrintStream

```
- streams : Collection<PrintStream>
- error : boolean

~<< final >> add(ps: PrintStream); void
+ checkError(): boolean
+ close(); void
+ flush(); void
+ print(b: boolean); void
+ print(c: char); void
+ print(c: char[]); void
+ print(d: double); void
+ print(f: float); void
+ print(i: int); void
+ print(l: long); void
+ print(obj: Object); void
+ print(str: String); void
+ println(b: boolean); void
+ println(c: char); void
+ println(c: char[]); void
+ println(d: double); void
+ println(f: float); void
+ println(i: int); void
+ println(l: long); void
+ println(obj: Object); void
+ println(str: String); void

# setError(); void
+ write(bd: byte[], off: int, len: int); void
+ write(b: int); void
+ write(b: byte[]); void
```

### <<interface>> Message

```
+ invalidOperation(error: String): String
+ invalidOption(): String
+ errorEOF(e: EOFException): String
+ errorIO(e: IOException): String
+ errorInvalidNumber(e: NumberFormatException): String
+ errorREOF(e: RuntimeEOFException): String
+ inputError(e: FileNotFoundException): String
+ errorClosingInput(e: IOException): String
+ endOfInput(): String
+ outputError(e: FileNotFoundException): String
+ logError(e: FileNotFoundException): String
```

### <<interface>> Prompt

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

### <<interface>> Property

```
~ WRITE_INPUT: String
~ BOTH_CHANNELS: String
~ INPUT_CHANNEL: String
~ OUTPUT_CHANNEL: String
~ LOG_CHANNEL: String
```

### TextInteraction

```
- in: BufferedReader
- out: PrintStream
- log: PrintStream
- writeInput: boolean

+ close(); void
+ open(menu: Menu); void
+ fill(form: Form); void
+ render(title: String, text: String); void
+ readString(prompt: String): String
+ readInteger(prompt: String): int
```

### Dialog

```
- <<final>> ACTION_CHANNEL: String  
- <<final>> CHANNEL_SWING: String  
- <<final>> CHANNEL_NEW_SWING: String  
- <<final>> CHANNEL_TEXT: String  
- backend: InteractionDriver  
  
+ open(menu: Menu): void  
+ fill(form: Form): void  
+ render(title: String, text: String): void  
+ close(): void
```

### Display

```
- ui: Dialog  
- title: String  
- text: StringBuilder  
  
+ add(toAdd: Object): Display  
+ addAll(items: Collection<?>): Display  
+ addLine(toAdd: Object): Display  
+ addNewLine(toAdd: Object, force: boolean): Display  
+ <<final>> display(): void  
+ <<final>> displayText(): void  
+ popUp(toPop: Object): void  
+ popUp(toPop: Collection<?>): void  
+ clear(): void
```

<<interface>>

### InteractionDriver

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

Declaro por minha honra que este diagrama foi realizado apenas pelos  
Francisco Almeida  
foi realizado apenas pelos  
Tiago Santos