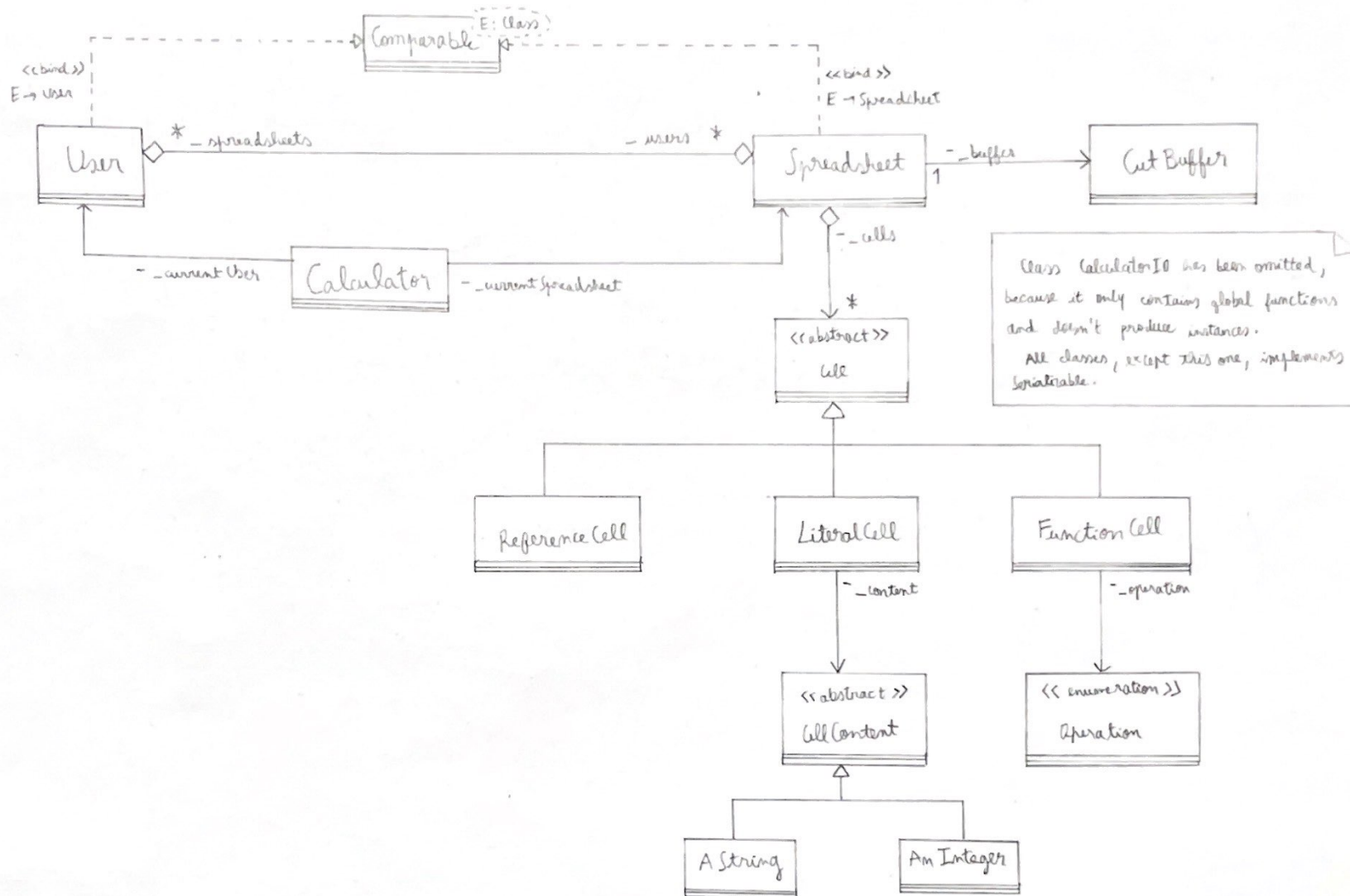


Declaro pela minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo Henrique Luy. 99417.  
 Declaro pela minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo Vasco Conceição. 100481.



## Spreadsheet

```

- cutBuffer: CutBuffer
- cells: Cell [][]
- fileName: String
- users: List<User>

+ Spreadsheet(rows: int, columns: int, current User: User)
+ getUser(): List<User>
+ getUser(name: String): User
+ getCell(row: int, column: int): Cell
+ show(range: String): void
+ insert(range: String, content: String): void
+ copy(range: String): void
+ paste(range: String): void
+ delete(range: String): void
+ cut(range: String): void
+ showValues(value: int): void
+ showFunction(function: String): void
+ addUser(current User: User): void
+ removeUser(current User: User): void

```

## Calculator

```

- currentUser: User
- currentSpreadsheet: Spreadsheet

+ new(rows: int, columns: int): void
+ open(): void
+ save(): void
+ save(fileName: String): void
+ setUser(currentUser: User): void
+ removeCurrentUser(): void
+ removeCurrentSpreadsheet(): void

```

## User

```

- spreadsheets: List<Spreadsheet>
- name: String

+ User(name: String)
+ getSpreadsheets(): List<Spreadsheet>
+ getSpreadsheet(fileName: String): Spreadsheet
+ addSpreadsheet(spreadsheet: Spreadsheet): void
+ removeSpreadsheet(spreadsheet: Spreadsheet): void

```

## <<enumeration>> operation

```

ADD
SUB
MUL
DIV
COALESCE
CONCAT
AVERAGE
PRODUCT

```

## ReferenceCell

```

- row: int
- column: int

```

## AString

```

- string: String

```

## AnInteger

```

- integer: int

```

## LiteralCell

```

- content: CellContent

```

## CutBuffer

```

- buffer: String

```

Methods "equals" and "toString" have been omitted, as well as getters and setters.

Declaro pela minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo. Henrique Luz. id 999411  
 Declaro pela minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo. Vasco Conceição. id 1106481