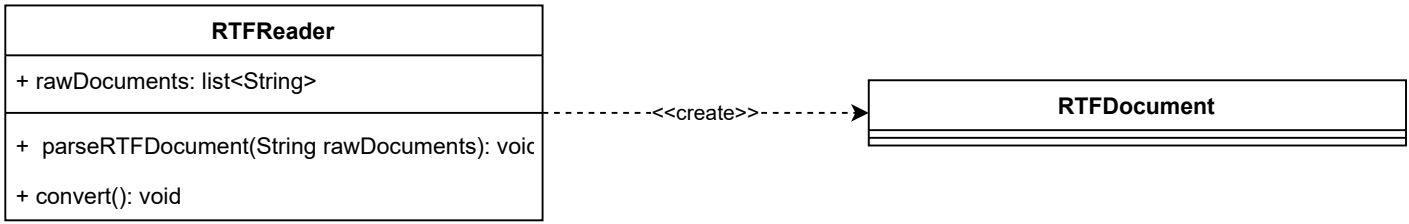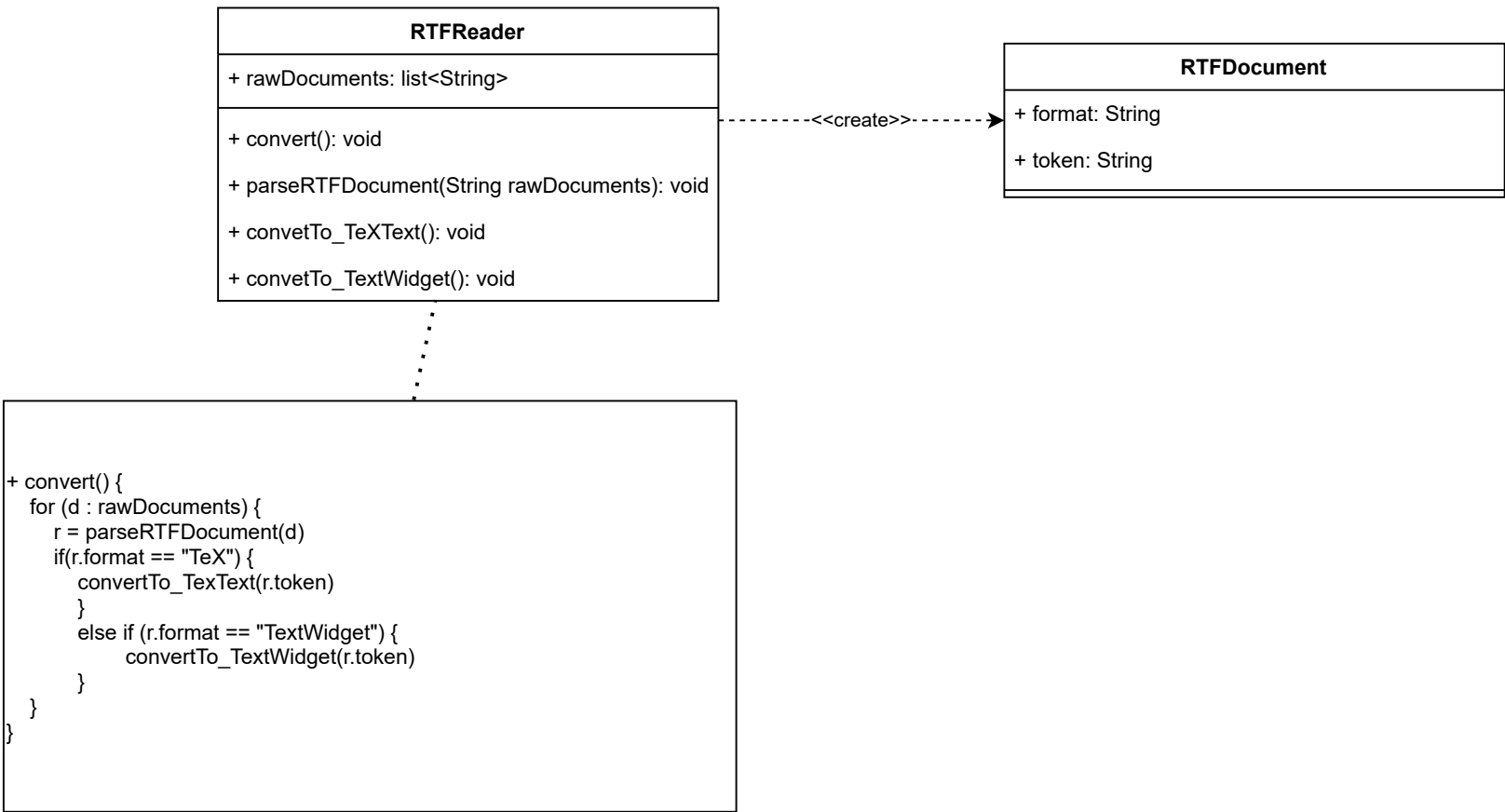❑ A reader for the Rich Text Format (RTF) document exchange format should be able to convert RTF to many different text formats.

RTFReader

+ rawDocuments: list<String>

+ parseRTFDocument(String rawDocuments): void

+ convert(): void

- - - - <<create>> - - - - ▶

RTFDocument

❑ The reader converts RTF documents into TeX text or into a text widget by recognizing different RTF tokens (Character, Font Change and Paragraph).

RTFReader

+ rawDocuments: list<String>

+ convert(): void

+ parseRTFDocument(String rawDocuments): void

+ convetTo_TeXText(): void

+ convetTo_TextWidget(): void

- - - - <<create>> - - - - ▶

RTFDocument

+ format: String

+ token: String

```
+ convert() {
   for (d : rawDocuments) {
      r = parseRTFDocument(d)
      if(r.format == "TeX") {
         convertTo_TexText(r.token)
      }
      else if (r.format == "TextWidget") {
         convertTo_TextWidget(r.token)
      }
   }
}
```

Refactoring

RTFReader

+ rawDocuments: list<String>

+ convert(): void

+ parseRTFDocument(): void

- - - <<create>> - - -

- - - <<create>> - - -

RTFDocument

+ format: String

+ token: String

```
+ convert() {
   for(int i = 0; i < rawDocuments.size(); i+=2){
      parseRTFDocument(rawDocuments.get(i),
                       rawDocuments.get(i+1));
}
```

- - - <<use>> - - -

```
+ void parseRTFDocument(rawDocument) {
    while (...) {
        RTFDocument rtfDocument = null;
        // parsing format and token from rawDocument into rtfDocument
        ...
        if (rtfDocument.format == "TeX") {
            Converter converter = new TexConverter()
            converter.convert(rtfDocuments)
        }
        else if (rtfDocument.format == "TextWidget") {
            Converter converter = new TextWidgetConverter()
            converter.convert(rtfDocuments)
        }
    }
}
```

Converter

+ convert(RTFDocument): void

TextWidgetConverter

+ convert(RTFDocument): void

TeXConverter

+ convert(RTFDocument): void