Documentation tool for dotty using Tasty files

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Abstract

The current documentation tool (dottydoc) relies on compiler internals and low level code. The tool introduced here aims to build a program not dependant on compiler internals but instead use Tasty files which are output when a Scala program is compiled.

It also aims at providing a tool with less bugs, more features and which is more easily maintenable.

For flexibility the output is in markdown instead of html.

Contents

Chapter 1

Introduction

In dotty the documentation generation tool is called `dotty-doc`. However the tool is flawed in many ways, these flaws include:

- Reliance on compiler internals
- Low level and unecessarily complex code which make it hard to maintain
- Not maintened and not documented
- Not flexible in its output, it outputs html/css in a hard to modify way
- Malformed type output such as `[32m"getOffset"[0m`
- Classes often show to be extending Object instead of their superclass. Example: `https://dotty.epfl.ch/api/scala/Conversion.html`

  abstract class Conversion [–T, +U] **extends** Object **with** Function1
- Annotations which sould not be display, sometimes are. Example:
- Lacks some features, especially:
  - No known subclasses
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The tool introduced here aims to address all these issues while providing with a code easy to maintain and easy to adapt to every need.

One major difference with currrent documentation tools is that the output is in markdown instead of html, this has some pros and cons which will be discussed below.

Althought dotty-doc has some problems, the current tool will draw inspiration for some of its architecture which will allow for its parsing code for user documentation (modified to handle this structure and output markdown) to be reused.

The report will follow the structure described in this introduction and will conclude with problems of the current implementation and further work.

Chapter 2

Features

Chapter 3

Output format

Chapter 4

Architecture

Chapter 5

Problems encountered

Chapter 6

Further work

Chapter 7

Conclusion