

COMP207P Report

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1 Introduction

In this report we will outline the thought processes and actions undertaken in order to implement **Simple Folding** and **Constant Variables** peephole optimisations.

2 Notes on File Structure

We decided that **SimpleFolding** should be in a separate file to the provided **ConstantFolding** in order to adhere to the good practice of keeping one public class per **java** file

3 Simple Folding

3.1 Thought Processess and Design Decisions

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3.2 Implementation Notes

Algorithm 1 Simple Folding algorithm

```
1: Hope = 4
2: while Hope > 0 do
3:   if knowWhatToDo = True then
4:     person  $\leftarrow$  DoesSomething
5:   else
6:     Hope  $\leftarrow$  Hope - 1
7:   end if
8: end while
```

3.3 Testing and Result

4 Constant Folding

4.1 Thought Processess and Design Decisions

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4.2 Implementation Notes

Algorithm 2 Simple Folding algorithm

```
1: Hope = 4
2: while Hope > 0 do
3:   if knowWhatToDo = True then
4:     person  $\leftarrow$  DoesSomething
5:   else
6:     Hope  $\leftarrow$  Hope - 1
7:   end if
8: end while
```

4.3 Testing and Result