



My Report!

First year review report

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Abstract

Giving a short overview of the work in your project.[\[1\]](#)

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Chapter 1

Introduction

```
open import Relation.Binary.PropositionalEquality
```

1.1 Natural Numbers

First, we define the type of natural numbers inductively:

```
data  $\mathbb{N}$  : Set where  
  zero :  $\mathbb{N}$   
  suc :  $\mathbb{N} \rightarrow \mathbb{N}$ 
```

Here, \mathbb{N} is the type of natural numbers, with two constructors:

- `zero` represents 0.
- `suc` represents the successor function (i.e., $n + 1$).

1.2 Addition

Next, we define addition recursively:

```
_+_ :  $\mathbb{N} \rightarrow \mathbb{N} \rightarrow \mathbb{N}$   
zero + n = n  
suc m + n = suc (m + n)
```

This definition states:

- $0 + n = n$ (base case).
- $(m + 1) + n = (m + n) + 1$ (recursive case).

Chapter 2

Prerequisites

module Prerequisites where

2.1 Type Theory

This is type theory

Chapter 3

Conducted Research

This is conducted research chapter.

Chapter 4

Conclusions

This is conclusions.

Chapter 5

Future Work Plan

This is future work plan.

Bibliography

- [1] ABBOTT, M., ALTENKIRCH, T., AND GHANI, N. Containers: Constructing strictly positive types. *Theoretical Computer Science* 342, 1 (2005), 3–27. Applied Semantics: Selected Topics.

Chapter 6

Appendix

This is appendix.