# Project Boundary

Nitish Kumar, BCA, SV Subharti University, nitishkumar7nk11@gmail.com

February 23, 2025

#### Abstract

This is a sub-project of "Data Re-Compression". In this project, function for different "Sequence" will be defined.

# 1 Sequence

**Sequence** is group of different symbols, which are related to each other. When any data will be encoded for "Data Re-compression, it will be in form of "Sequence".

#### 1.1 Level-I Sequence:

when single variable will be use in function

$$f(x) = x^2 + 3, \quad x \in [1, 10]$$

#### 1.2 Level-II Sequence:

when multiple variable will be use in function

$$f(x) = x + y + z, \quad x \in [-\infty, +\infty], \qquad y \in [1.5, 2.0], \quad z \in [-100, +100], \quad f(x) \in [-90, +1000]$$

#### 1.3 Level-III Sequence:

when two or more function will be use for generate a single-Sequence

$$f(x) = x^3$$
,  $g(x) = 2x$ ,  $h(x) = \sqrt[4]{x}$ 

#### 1.4 Level-IV Sequence:

when composite function will be used for generate a Sequence.

$$f(x) = 2x^2$$
,  $g(x) = 3x + 7$ ,  $h(x) = 2\sqrt{x}$ 

The composite function is:

$$f(g(h(x))) = 2x^2$$

# 2 Main Work

## 2.1 Text Boundary

For a book: one page will be encoded as "Sequence" and "Formula" will be find for this. This sequence will contain 20,000 terms.

For other text: one chunk can be taken less than 20,000 or it can choose by size, like 1 byte, 1 kb, or other size.

## 2.2 Image Boundary

one image can be directly process, or can be chunk by size or any constant number.

# 2.3 Video boundary

each scene will be process.

#### 2.4 Other files

Chunk and process.

©2025, Nitish Kumar