NiSqFile

FILE COMPRESSOR AND CONVERTOR

NiSq is an advanced file compression and conversion system that optimizes storage and compatibility for today's large data volumes.

MEET THE TEAM

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Abstract

Data Growth Challenge

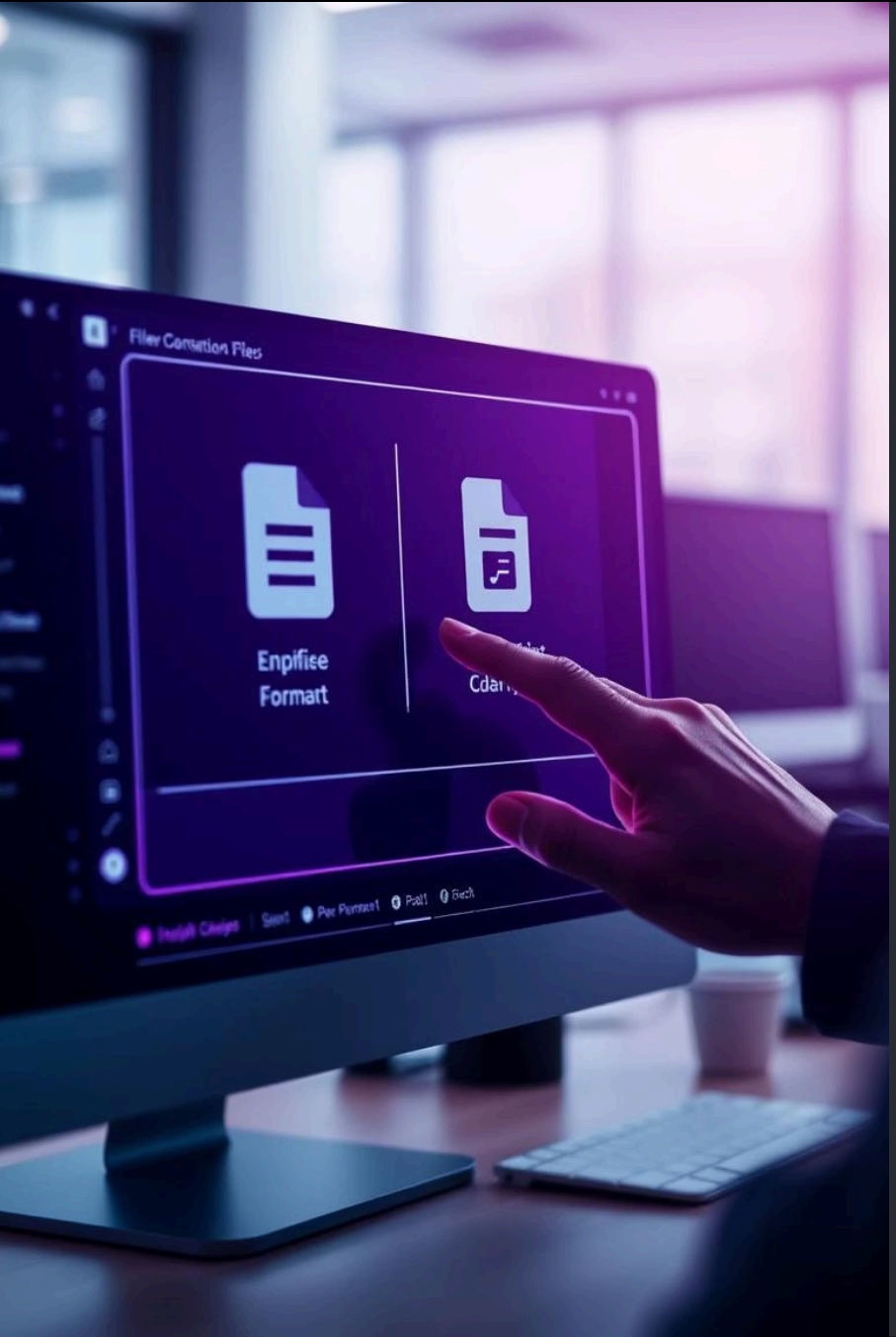
Managing large files consumes storage and bandwidth severely.

Integrated Solution

Compress and convert various file formats efficiently.

File Types Supported

Documents, images, videos, and audio with quality retention.



Introduction

Data Growth Challenge

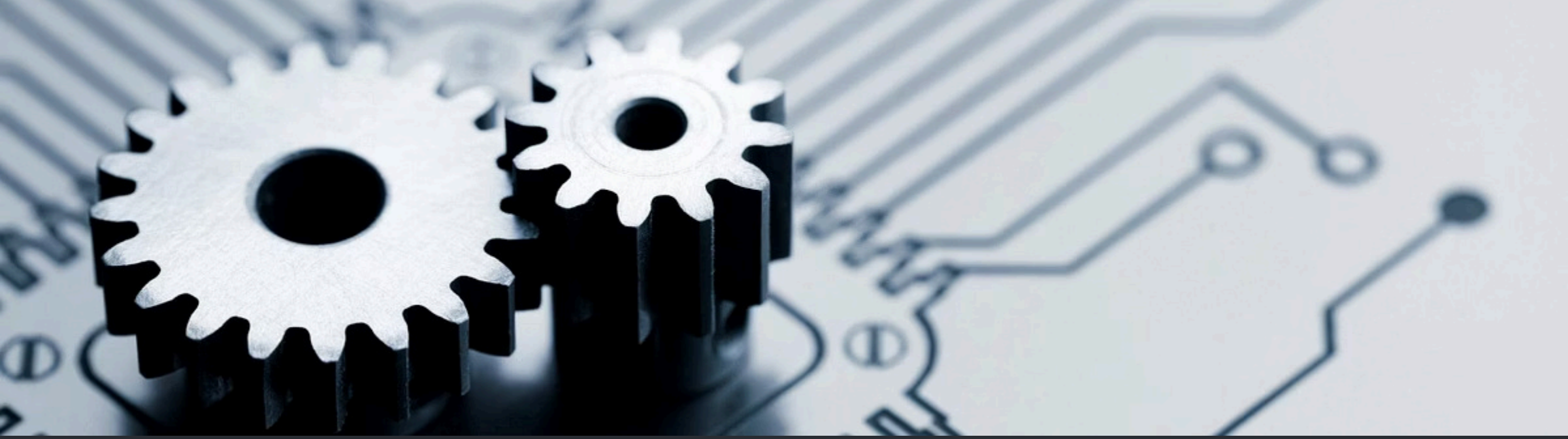
Increased multimedia use and data generation require efficient file management solutions.

Versatile Tool

The File Compressor and Converter adapts to compress and convert files seamlessly for various needs.

Use Cases

Compressing large videos for streaming and converting documents for compatibility enhance user experience.



Introduction

Exponential data growth demands efficient file management.

Our tool reduces file sizes and enables format conversions.

Supports video compression for faster streaming and document compatibility conversions.

User-friendly and versatile for individuals and businesses alike.

Problem Statement

Storage Constraints

- Large files consume significant device space.
- Storage limits hinder efficient file usage.

Bandwidth Limitations

- Large files cause slow transfers on limited networks.

Format Compatibility

- Need for converting files across diverse platforms and software.

Proposed System

Software compresses files to save space and convert formats.

Supports images, audio, video, text, and documents.

Analyzes file type and size to select the best compression algorithm.

Ensures compact, portable storage format.

Working of System - Part 1

1

File Analysis

Examines type, size, and structure to choose compression algorithm.

2

Compression Algorithms

Huffman for text, LZ77 for patterns, lossy for images/videos.

3

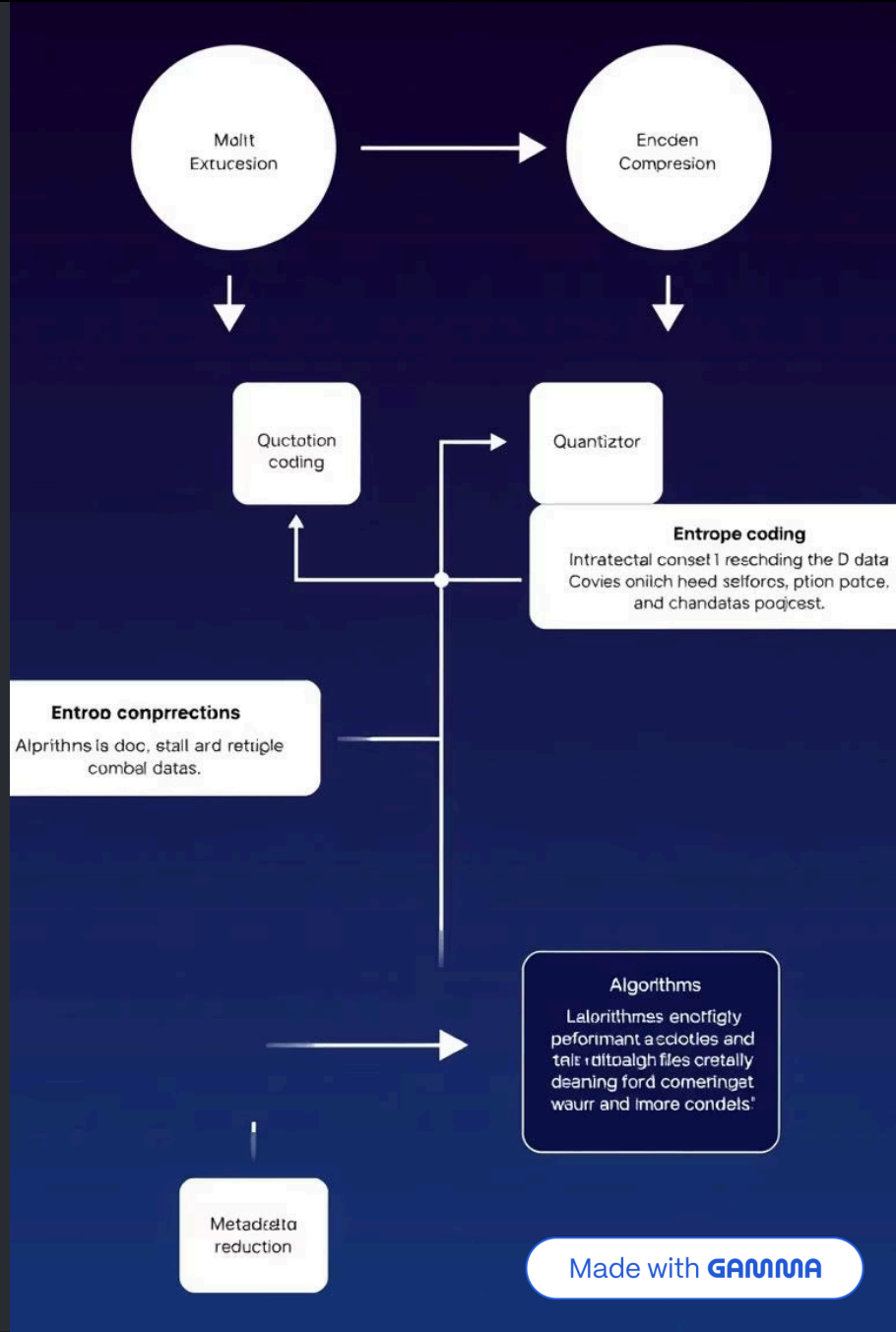
Metadata Header

Stores original file details and encoding info in the file header.

4

Format Conversion

Converts file formats as per user request using format rules.



Working of System - Part 2

1 **Saving Output**

Compressed file saved as .zip or specified format.

2 **Decompression**

Reverses compression and converts back if needed.

3 **Advantages**

Small size, multi-format support, portable with metadata.

Hardware & Software Requirements

Hardware

- Intel Core i5 1.6 GHz or above
- 4 GB RAM minimum
- 500 MB storage
- Active Internet connection

Software

- Python backend
- MongoDB database
- Flask web framework
- Windows operating system

Advantages of NiSq File Compressor

High Compression Efficiency

Significantly reduces file sizes while maintaining quality.

Multi-format Support

Compatible with PDFs, images, videos, and more.

Cross-Platform

Operable on Windows, macOS, and Linux environments.

Fast Processing

Optimized algorithms deliver rapid compression and conversion.

More Advantages

batch processing

easy interface

cross-platform support

Smart Compression

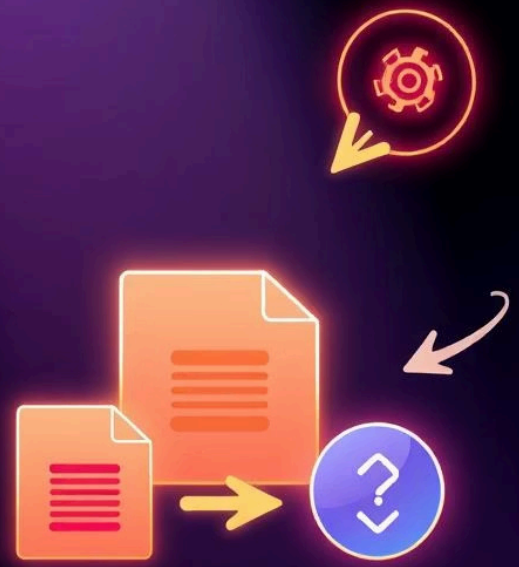
Easily Download

interactive

Conclusion

The project delivers an efficient, versatile tool for compressing and converting large files.

Emphasizes usability, speed, and reliability for personal and business use.



THANK YOU !

Thanks to my team members

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