

PROJECT-1

Compression

Overview

Target

File compressing and decompressing

Using Huffman Coding

JAVA

Time

2019/10/09-2019/11/3

Motivation

Information stored and transmitted as bits

With Compression

- Save storage space

- Save transmission bandwidth and time

Huffman Coding

Standard Encoding

ASCII - 7 bits per character (8 bits for Extended ASCII)

“MISSISSIPPI RIVER”

17 characters * 7 bits = 119 bits

Huffman Coding

46 bits in total

Your Job

A runnable tool that can compress and decompress

single file with size from several kilobytes to several gigabytes

folder with multiple files or subfolders into a single file

empty file and empty folder

User-friendly GUI with a User Manual

Your Job

A document with:

How you implement this tool and how you optimize

Performance test result for each provided test case

Testcase No. + Time + Compression Rate

Your computer configuration

Bonus: Comparison with WinRAR, HaoZip, 7Zip, etc

Points

Single file compressing & decompressing	30
Folder compressing & decompressing	30
Performance (Time & Rate)	15
UI design & User Manual	10
Development Documentation	10
Bonus: Comparison	5

Submission

183020100XX_NAME.zip

Executable jar file

Source code

User Manual

Development Documentation

Deadline

Upload a zip file to FTP server before

2019/11/3 23:59 (GMT+08:00)

Interview before

2019/11/10 21:00

No Plagiarism & No Extention