The code is already compiled and can be directly executed by running output.exe. However if you wish to compile again you can do so. I have used g++ as my compiler and you can compile the code by running this line in the command prompt if you have g++ installed:

g++ Main.cpp Node.cpp HuffmanLeaf.cpp –o output

When the program is run for the first time, this will be the output:

```
Enter c to compress, d to decompress, q to quit
Command:_
```

There are three options. Entering c will commence compression, entering d will commence decompression. Assuming c is entered, the next screen will be like this:

```
Enter c to compress, d to decompress, q to quit
Command:c
Enter file name:
```

Now the program will ask for the file name. The file names must be entered with the extension (example.txt) and also they must not be Read Only. If they are Read Only, that should be changed in the properties section of the file. After entering the file name, the program will commence compression and will create a file "called compressed.bin" The compressed file's name is hard coded into the program so decompression will also be done using the file compressed.bin. After compression is done, the program will tell the user that it's done and ask for the new command.

```
Enter c to compress, d to decompress, q to quit
Command:c
Enter file name:example.txt

Open!
Read complete!
Starting array creation!
Sorting...
this probably takes long :(

Compress Done :)


Enter c to compress, d to decompress, q to quit
Command:_
```

compressed.bin	18.4.2016 18:38	BIN Dosyası	1 KB
example.txt	18.4.2016 18:37	Metin Belgesi	2 KB
output.exe	18.4.2016 18:25	Uygulama	2.074 KB

To decompress the file, enter d as the command. This will ask the user what they want the decompressed file's name to be (example2.txt). The file name must be entered with the extension. The program will always decompress the file "compressed.bin", this is hard coded. After entering the file name with its extension, the program will commence decompression and create the new file. Then it will ask for the new command.

```
Enter c to compress, d to decompress, q to quit
Command:d

Enter file name after decompress done "example.txt": example2.txt
Open!

Decompress done!

Enter c to compress, d to decompress, q to quit
Command:
```

compressed.bin	18.4.2016 18:38	BIN Dosyası	1 KB
example.txt	18.4.2016 18:37	Metin Belgesi	2 KB
example2.txt	18.4.2016 18:45	Metin Belgesi	2 KB
output.exe	18.4.2016 18:25	Uygulama	2.074 KB

After a side by side comparison, it can be seen that both files are the same.

example.txt - Not Def...
Dosya   Düzen   Biçim   Görünüm   Yardım
```
123456789
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
```

example2.txt - No...
Dosya   Düzen   Biçim   Görünüm   Yardım
```
123456789
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
This is a test file.
```