Coding Challenge

My thought process and how I approached the solution. How do I find the decryption table:

First of I must say that I was told to work with the two files: encrypted.txt and encrypted_hard.txt. I call soft encrypted the first file, and hard encrypted the second one.

Soft encrypted:

I started looking for special characters into the encrypted file to find and compare with the plain text file (the right one). I tried with ".- -" pattern and that was all I needed to get the rest of the letters, an example of this can be:

Iwjwanrk qe Fnlqrz; Ynrjtnsnr zrm Ynrjtndqsnr qe hqjx xqgknk;
Szkunlk, Jqlixhnzlnlk, Pzynk, Ygzlmk, Dzjixsnr, Knlfzrjk, zrm
Zjjnrmzrjk.

KINRN.--Fnlqrz; Szrjgz.

Citizens of Verona; Gentlemen and Gentlewomen of both houses;
Maskers, Torchbearers, Pages, Guards, Watchmen, Servants, and
Attendants.

SCENE.--Verona; Mantua.

It was easy for me. But the second one was a little hard...

Hard Encrypted:

At the beginning I didn't know how to start but then I realized that there was a strange pattern in the beginning of the paragraphs. The pattern was T, TT and TTT. I assumed letter T as the I letter in roman number.

So, at this point I knew that T is I

The other repeated pattern was: "Ml. bur Mld. Dbmdb". It take short to realize that "Ml. bur Mld." could be "Mr. and Mrs". So the next thing I had to do is to guess the meaning of Dbmdb. But, at this point I got:

T is I
M is M
L is R
B is A
U is N
R is D
D is S

Knowing this letters, I was able to guess the “surname of that couple”. So, knowing that DbmDB is SAMSA it was easy for me to complete the rest of the letters due to the fact that I know and love Kafka’s literature, so, the rest that I had to do was to google some chapters to complete the rest of the letters.

This last file take me a little more time, but I could do it.

How do you test that the decryption table is the right one?

I tested it with a small script I did, part of that PHP script is now included into the ChallengeService class.

Compiling and running instructions if needed.

The whole project was developed using Symfony 2.8, the only thing you should do is:

1. Open the terminal
2. Unzip the project
3. Enter project directory
4. **php app/console server:run** (you should have php installed globally)
5. Open your favourite browser and type: http://localhost:8000
6. That’s it

The output.txt, result of your algorithm

Both outputs are into results directory