Hello, I am Quentin Weber and today I would like to introduce QuixSync, a directory Synchronization tool, to you together with my Team.

The other member of the QuixSync-Crew are Philipp Ludwig, Chris Sembritzki and of course Quix our mascot.

(Klick)

Today's agenda will be as follows.

First, I will tell you what QuixSync is.

After that I will present you the graphical user interface and the “Whole-Sync”-Process.  
Followed by we will present each single Step a complete Synchronisation process is going through. Started by Indexing, wich I will explain to you.

Comparing and Syncing are presented by Chris and Phillip.

Afterwards the possible Settings, future Features and the Comparison between the finished Prototype and the technical Specification are presented to you by Phillip.

Okay, now let me tell you what QuixSync is, and why we developed it.

(Klick)

QuixSync is a synchronization-tool.  
Now you must think “There are so many others working sync tools, why they make another one?” The answer of this question is simple:

The most other modern programs (e.g. from big companies) run in a cloud or demand an internet connection. And maybe they will cost money and you don’t know what the program does in the background.

You would like to say to me, that there are alternatives in the Open Source segment. And I would answer “We know.” But in single cases these programs are overloaded with unnecessary functions (at least for us).

Therefore, we thought, we make our own synchronization tool. The reasons why those programs are extremely useful are obvious. I can immediately think of two use cases:

There are students with notebooks for the university and they would like to work further on a Desktop-PC at home.

Furthermore, there are lecturers, which would like to update their directories on the fileserver for the students, without thinking about which specific files are no longer up-to-date.

QuixSync is the solution to realize these two Use-Cases.

So now let us see, what we have done the last 2 months.

(Klick)

Here you can see a mockup from our technical specification. Lets have a look at how we ended up with?

We can see it at this board.

(Open on Chris Laptop)

You can see that there are some changes to the mockup.

At the top you can see a little progress bar, which displays the progress of the specific task done.

Underneath it there are five pages wich allow you to reach every single Synchronization Step, as well as the “Whole Synchronization” and the Settings

Lets start with the “Whole Synchronization”.

Here you can see, two text fields. In these you should write the path for your Source and Target directories you want to synchronize.

Therefore the buttons on the right side, will allow you to open a file choose.

Finally, if you click on “Synchronize” the whole synchronization will start.

Later we will talk about the other features.

But first let's have look at how the synchronization works in detail.

Basically, QuixSync is a program, which can synchronize two directories.

For this purpose, it was divided in 3 steps:

1. Indexing

2. Comparing

3. Syncing

You can start each process by yourself.

Or you use the whole synchronization feature.

We would like to describe each single task shortly for you:

Indexing runs through every directory and save information’s about the included files.

We decided us to use “Nested Sets”-Algorithm to build up the file tree, because it is the simplest way to get a tree structure. With a tree structure we can skip on comparing certain directories with their included files and sub-directories, which have no changed “last modified” dates. This can increase the performance extremely.

But by skipping some files and directories, the program no longer captures renamed files, so we decided to make this step optional. We called it “Fast Mode”.

Now, Chris explains what lies behind the comparison.