



Athens University of Economics and Business
Department of Management Science and Technology



Advanced Topics in Software Engineering

HomeAlone

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UPM-SWING → Universal Password Manager 1/2

- A cross-platform application which provide an easy way to manage our usernames and passwords
- Our usernames and passwords are stored into a strong encrypted DB using an AES(Advanced Encryption Standard) 128-bit encryption method
- Utilize java swing(GUI library) to provide a user-friendly environment
- Provide two functions which copy the username and password of each account directly(without selection)
- Claims that provide multi-device synchronization of a user's database(The DB should be on cloud ex Dropbox)

UPM-SWING → Universal Password Manager 2/2

- Provide password generator which generate relatively strong passwords.

Benefits

- Faster login throughout the copy on clipboard functions
- Motivate us to use stronger passwords for enhanced safety (we just have to remember the password-key that our DB is encrypted)
- Streamlined for those who are more comfortable using the keyboard only (ex CTRL+A → New Account)

Project Summary 1/2

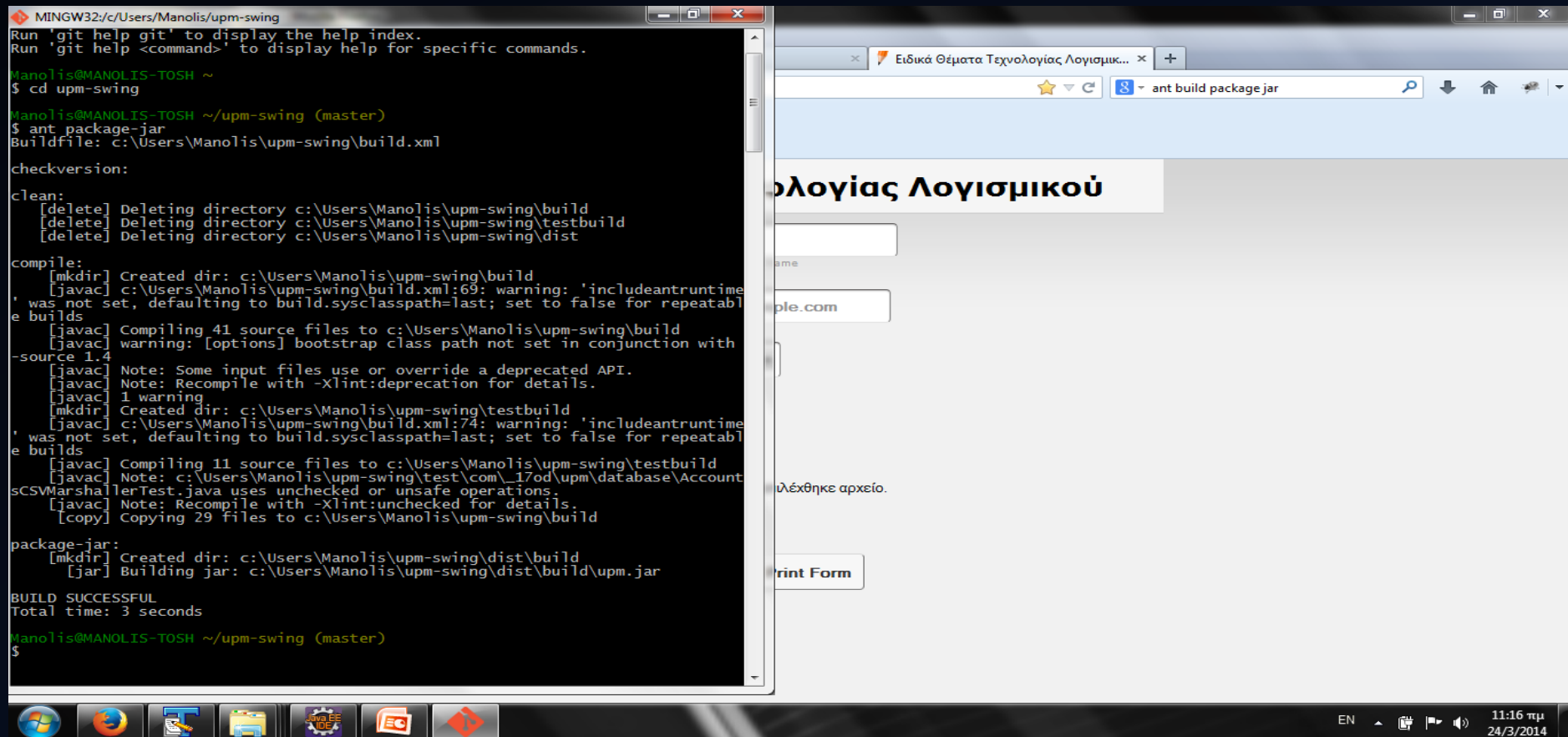
- ✓ License: [GNU General Public License \(GPL\)](#)
- ✓ Implementation Language: java
- ✓ Project web site: <http://sourceforge.net/projects/upm/>
- ✓ Git Repository: <https://github.com/adrian/upm-swing>
- ✓ Size(line of codes `exec:git ls-files | grep .java | xargs wc -l`): 6831 lines (source code) + 1193 lines(test code) = SUM 8024 lines
- ✓ 52 java files which generate 104 classes (*.java and *.class on windows search)
- ✓ Multilanguage application → currently available languages: English, Czech, German, Italian, Spanish, French and Polish

Project Summary 2/2

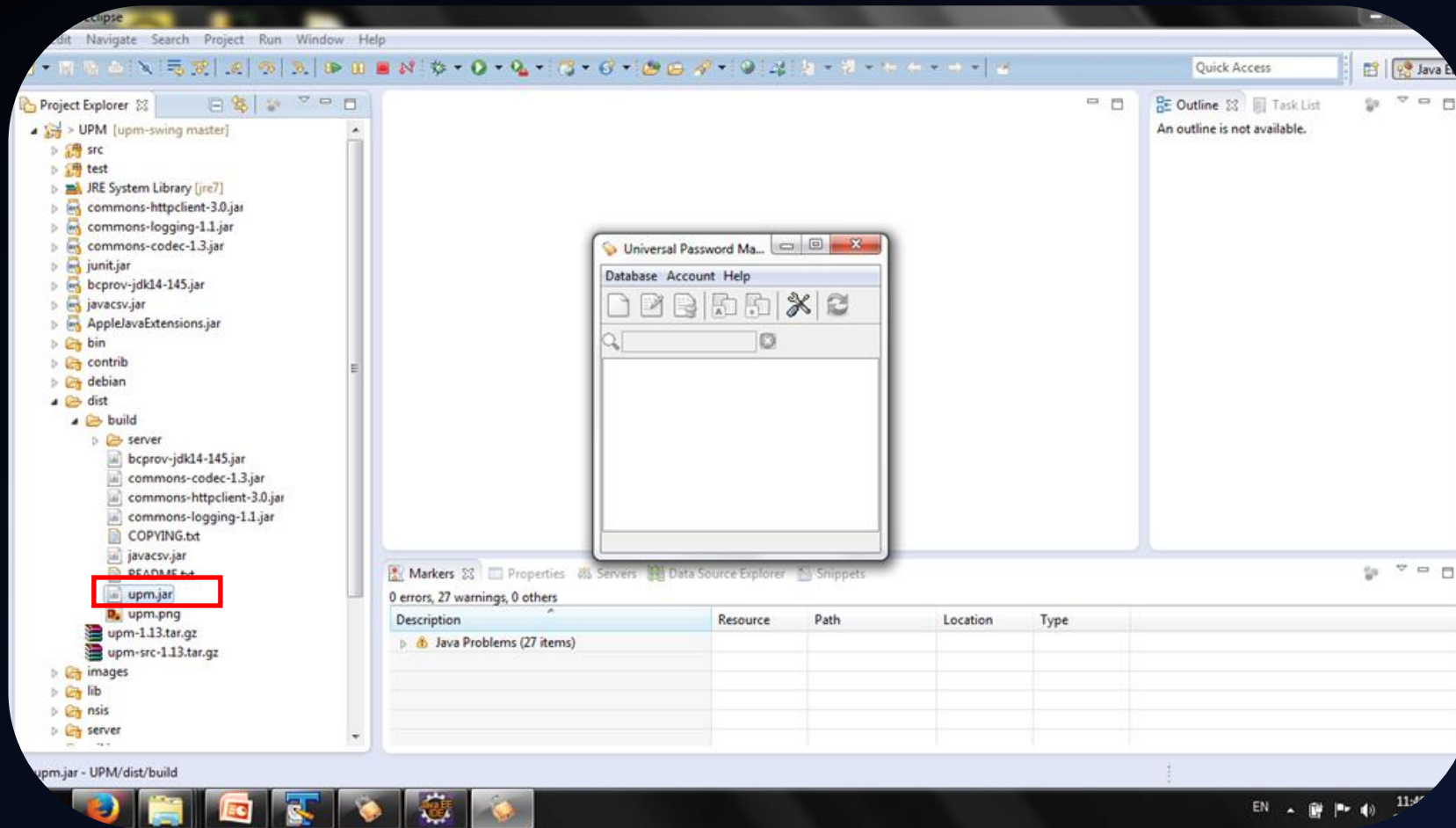
- ✓ Generate password of variable length in accordance with user selection (about the desirable length of them passwords). Passwords are strings which contain numbers + lowercase letters + Uppercase letters (of course it's depend on the user's selection about password length) but not escape characters like @#\$%^&* etc
- ✓ The users can select the time (in minutes) after which the DB will be locked (if no action on it occurs). Then they should reenter the password of the DB in order to use it again
- ✓ Ability to export your DB on a CSV file (Attention no encryption – plain text) or import from CSV into your DB (You should use a default structure at the imported CSV file)

About Project Build

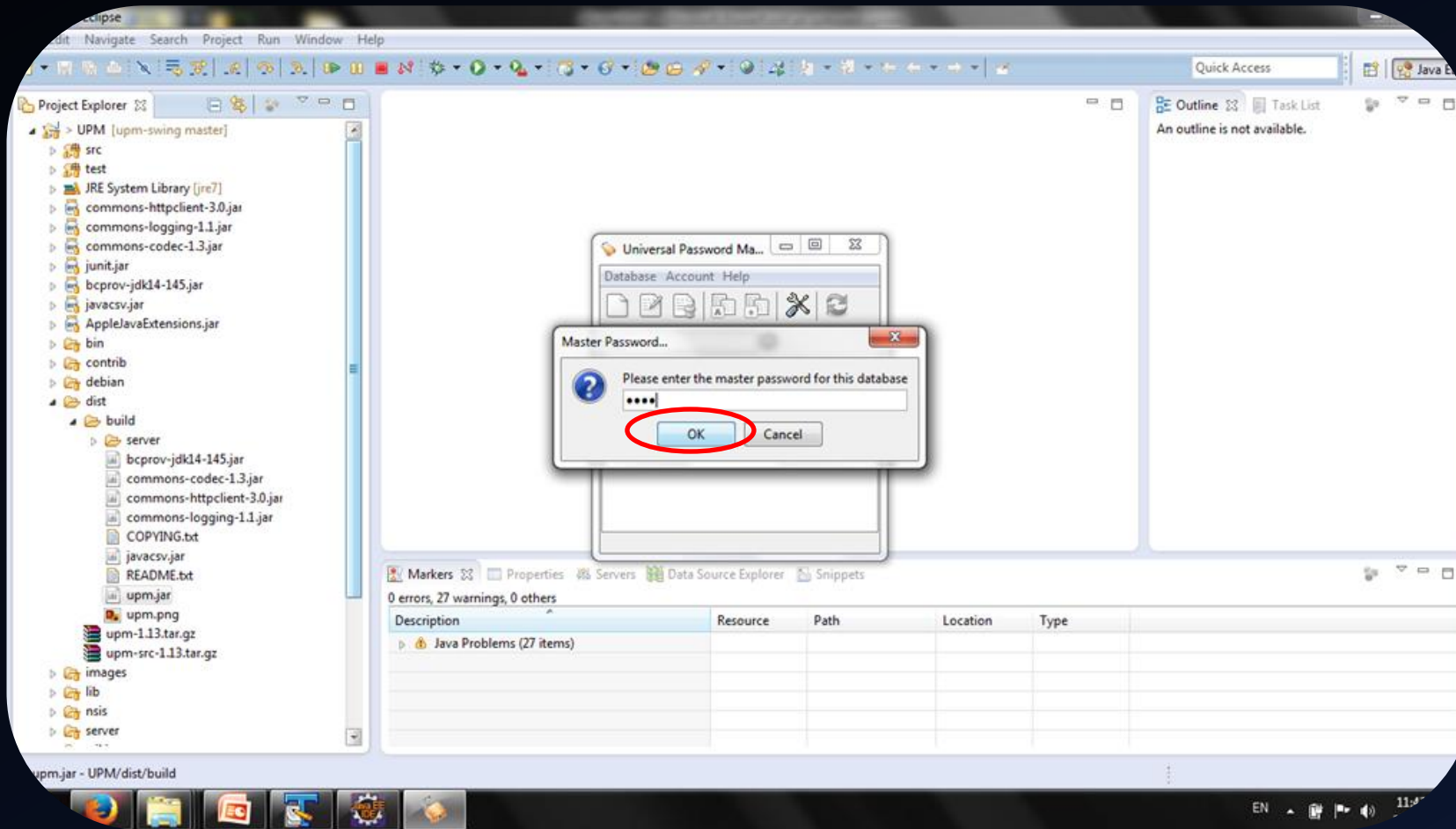
- I built it using ant <target> commands and then I run it into eclipse



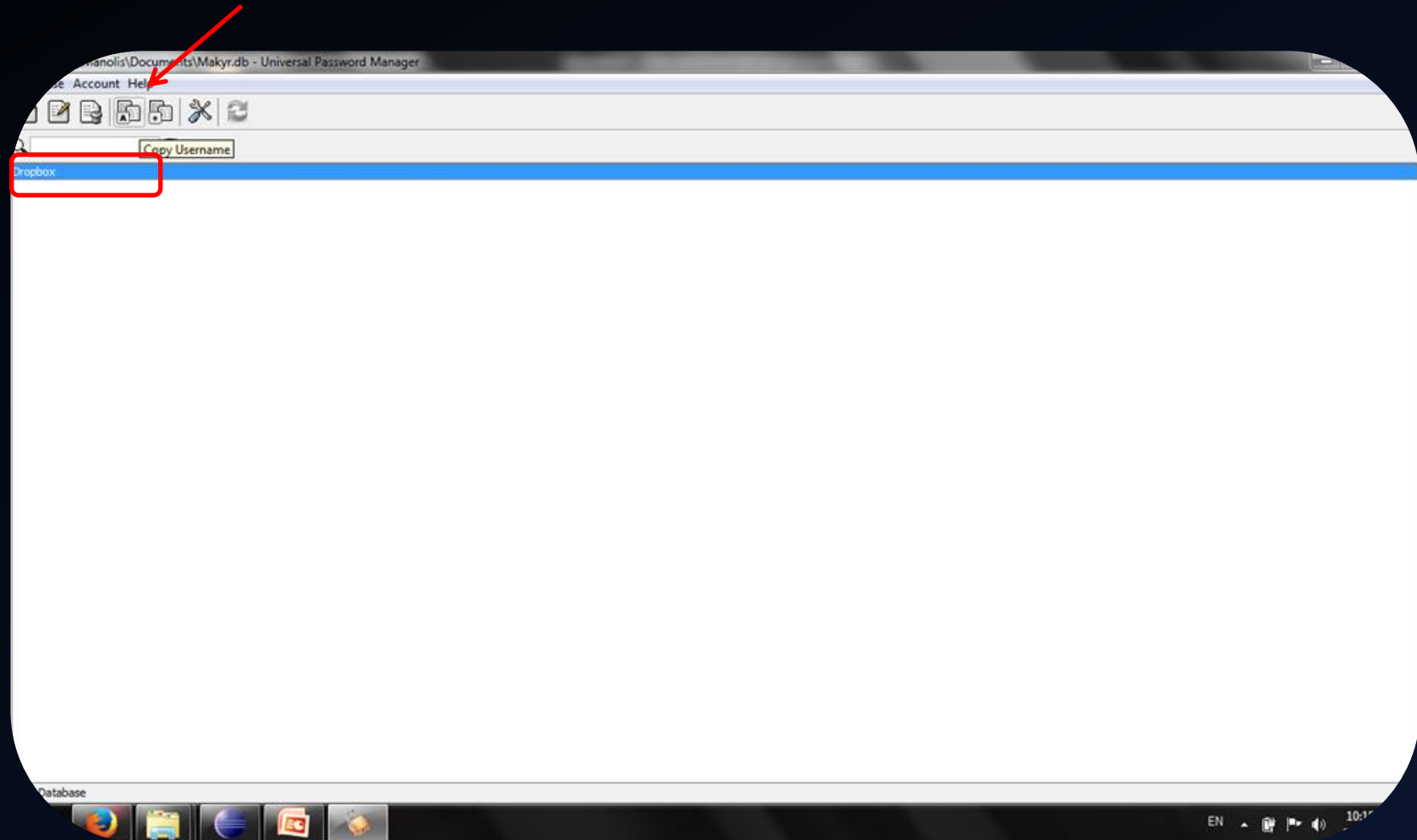
Some Screenshots



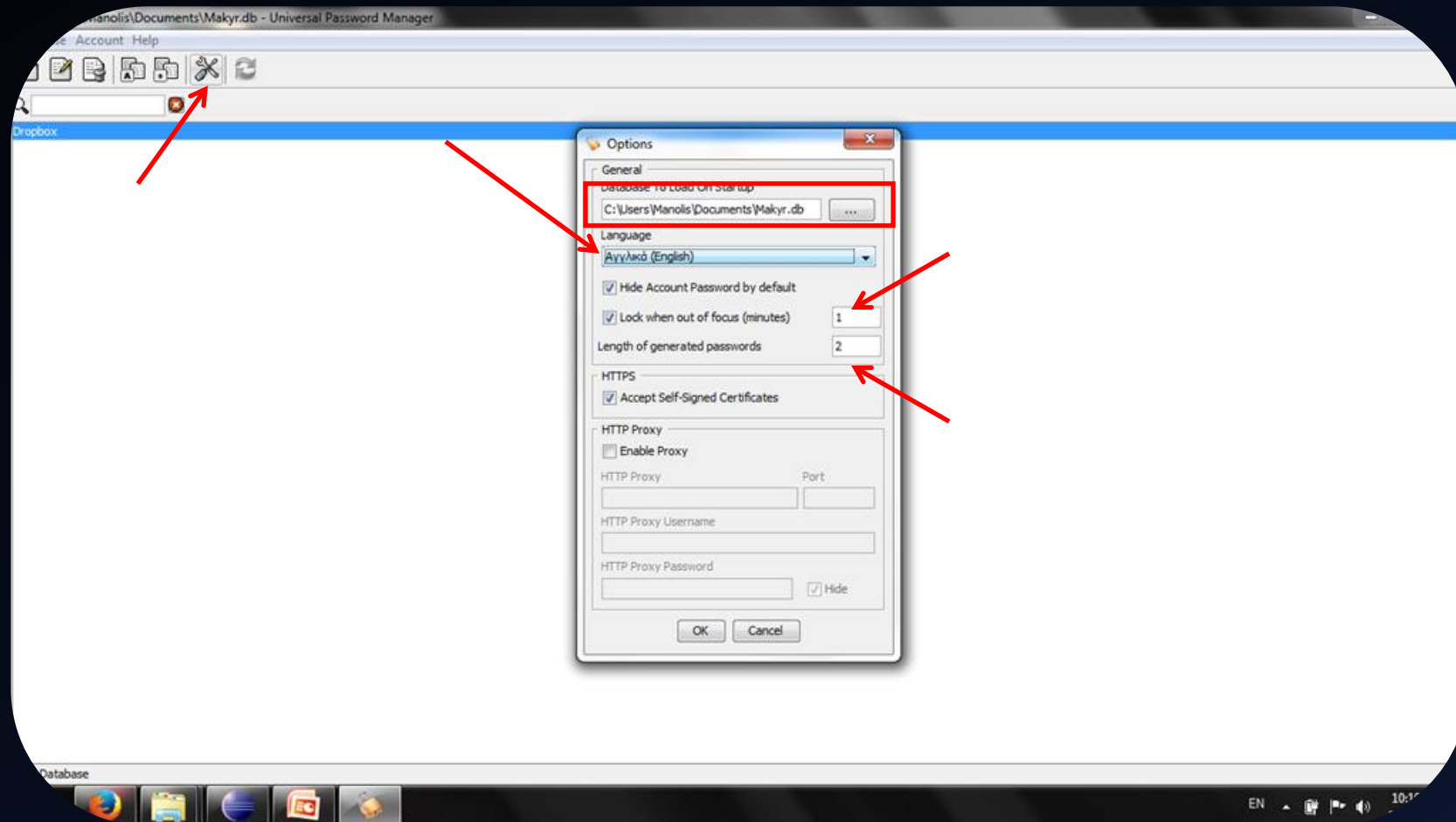
Some Screenshots



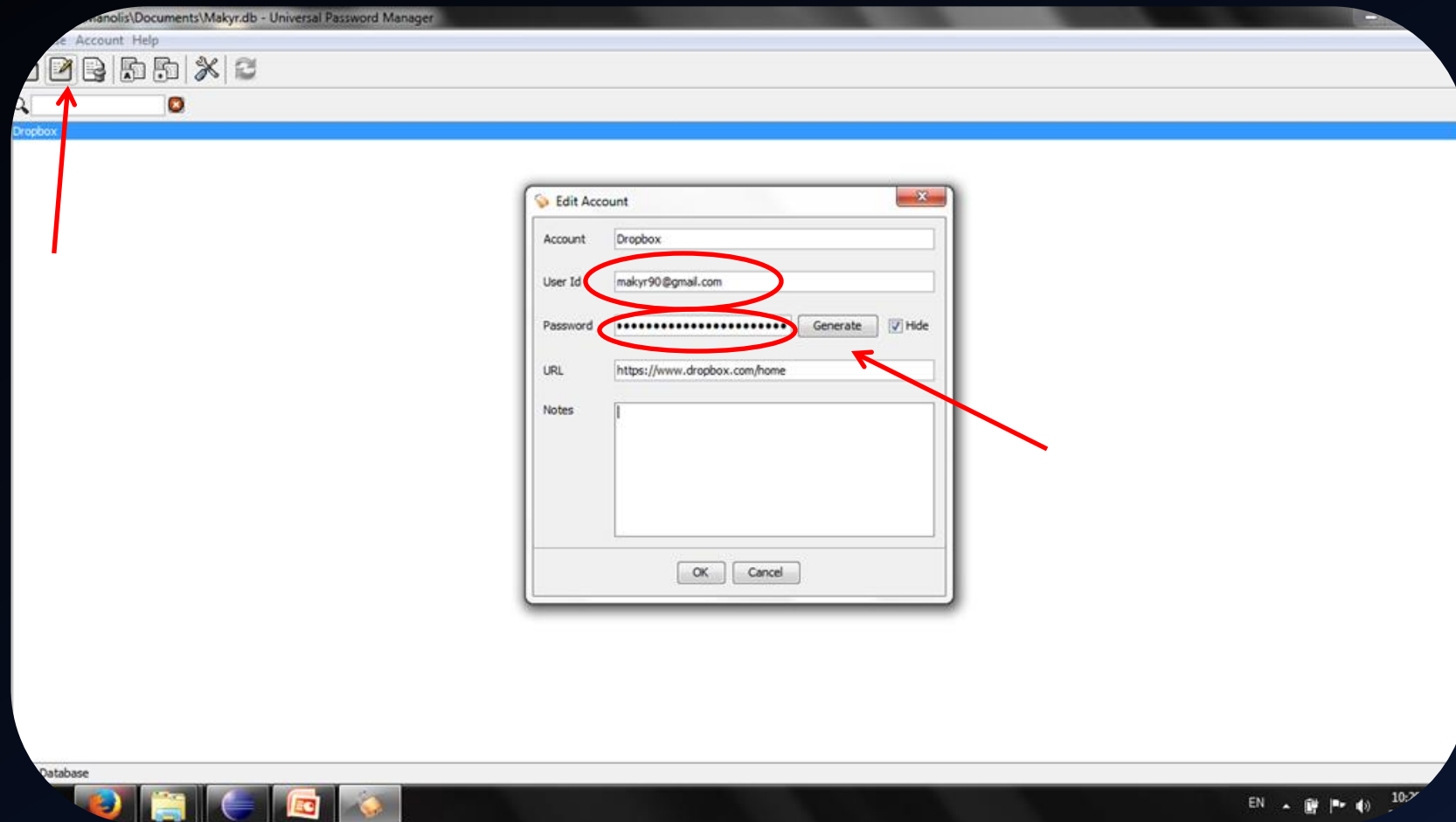
Some Screenshots



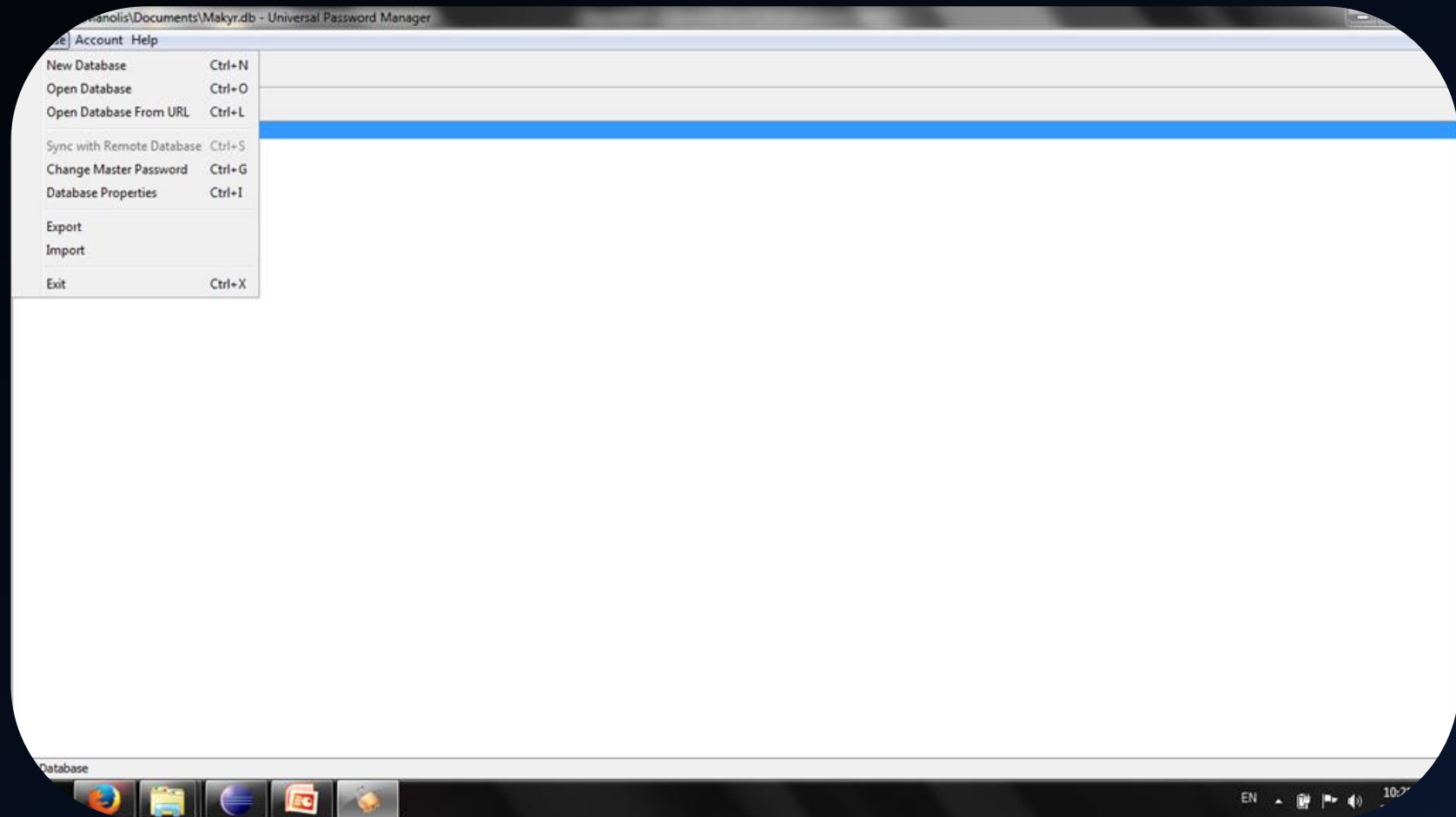
Some Screenshots



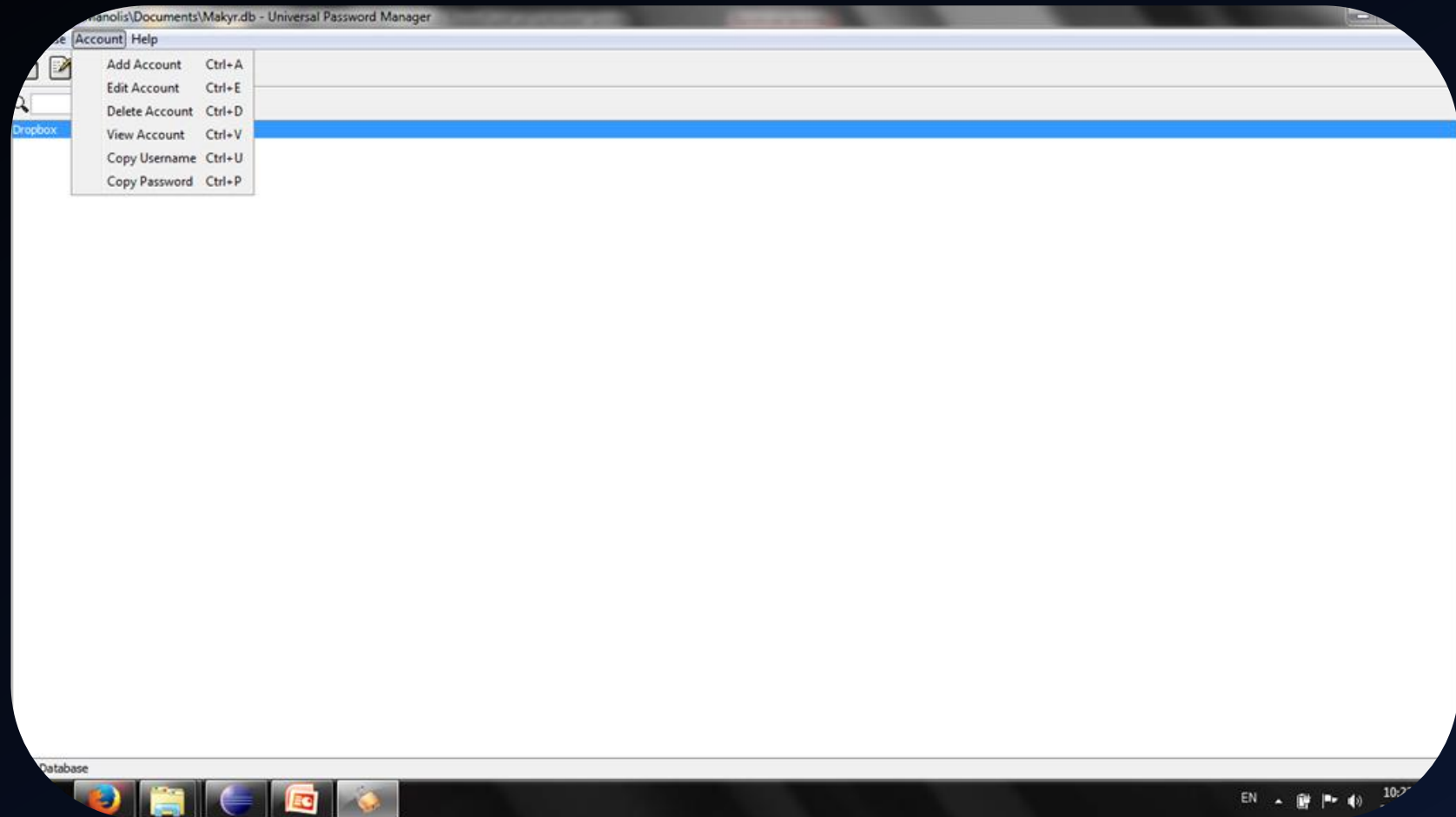
Some Screenshots



Some Screenshots



Some Screenshots



Possible Contribution

- ❖ Change the AES 128-bit Encryption to AES 256-bit(Stronger Encryption Key)
- ❖ Modify password generator function in order to produce passwords which contain also escape characters(!@\$%^&*()_+=~)
- ❖ Add function Copy URL to clipboard
- ❖ Translate Apps Messages in Greek and add the functionality in order to run the application in Greek(This task is includes in TODO file, so it is going to increase the possibility my pull request get accepted)

Any Questions?

