Message Board

# Business requirements

In order to increase the employee’s productivity, our company needed to create a Solution where the employees will participate in a cause-related dialogue to share, learn and search different answers on their issued problems. All active users will have the possibility to post and reply on “Message Board”, also they can search real-time answers on important needs and issues.

# Functional requirements

Implement a solution for “Message Board”. There will be two type of users within the application: Managers and Board users. Permissions for these two type of users will be different.

Managers should be able to:

* Visualize all users from the system (grid/table view) and see details about certain users (by clicking an individual from the table view)
* Activate and deactivate users
* Filter on active/inactive users
* Disable/delete comments or posts added by certain users

Regular users should be able to:

* Register within the application
* Gain access to the application by logging in
* Add Posts on message board
* Add Comments to Posts added by other users
* Change its password and profile image from the Profile menu

Post and comments general rules (inheritance):

* Posts
  + can be simple text messages or URL’s. In case of an URL is present within the text message, this should be displayed as a clickable link.
  + can have one image that will be displayed together with the published post.
  + can be published (visible to others when published) or draft/hidden.
* Comments
  + can be blocked by author of the post.
  + can have comments (parent child relation on multiple levels).
* Posts and comments have in common:
  + Author
  + Data
  + Text (can’t be longer than 160 characters (configurable))

General requirements

* Application must not crush. Always show a friendly error message to the user.
* Log to a file all unhandled errors within the application
* Log failed login attempts to a file.

Extra requirements:

* Lazy loading, load messages as user scrolls down through content.
* Add attachments to a post (only post, not comments)
* Preview a link with an image.
* Lists/grids/tables should use pagination if lazy loading is not used.
* Implement a notification system that will show when new posts are available (example: show notification icon when new comments are added to a post).
* Show a report/chart with most active users, based by how many posts/comments they posted. Show report per day/week/month/year.
* Export a thread (post + comments) as:
* Txt file (e.g. for copy to clipboard)
* Plain html file (simple html formatting)
* Password must be saved encrypted to database.
* Suggest friends based on comment interaction.
* Display weather based on user location (City) from user address/profile. Use yahoo services or any other provider Example for yahoo:
* http://query.yahooapis.com/v1/test/console.html
* ([https://query.yahooapis.com/v1/public/yql?q=select%20\*%20from%20weather.forecast%20where%20woeid%20in%20(select%20woeid%20from%20geo.places(1)%20where%20text%3D%22nome%2C%20ak%22)&format=json&env=store%3A%2F%2Fdatatables.org%2Falltableswithkeys)](https://query.yahooapis.com/v1/public/yql?q=select%20*%20from%20weather.forecast%20where%20woeid%20in%20(select%20woeid%20from%20geo.places(1)%20where%20text%3D%22nome%2C%20ak%22)&format=json&env=store%3A%2F%2Fdatatables.org%2Falltableswithkeys))

# Technical requirements

* The code should respect NetRom code conventions
* The implementation of the application should promote the separation between business rules and GUI (MVC/MVP/MVVM).