# Express.js Exam – Let’s build Instagram

# Exam rules:

* You have 8 hours – from 10:00 to 18:00
* When you are ready, delete the *node\_modules* folder, make sure all dependencies are listed in the *package.json* file and submit your archived project at <https://softuni.bg/trainings/1463/express-js-development-october-2016>
* There will be no breaks during the exam but you can go to the toilet or to breathe some fresh air outside **if you are alone**
* If you have any questions for the following description – ask the trainer, he is @ the back of the room
* Have fun! 

## Route / (10 Points)

Create a Node.js web server which is capable of returning an “index.html” file containing a welcome message and menu. Add all available routes from below to the menu. Add register, login and logout (only when logged in). List 100 images ordered by their creation date in descending order. The newest ones should be on top. Visible to anonymous users.

## Route /add (10 Points)

This route should allow all authorized users to add an image to the feed. Each image has URL and a description containing maximum 500 symbols. Do not use file uploads. A simple URL is enough.

## Parse tags (20 Points)

Parse the image description. All words starting with # should be considered tags. For example the message *“Hello, Instagram! This is my #first #photo in your system!”* contains two tags – ***first*** and ***photo***. Each tag is unique and case-insensitive. Use space, ‘.’, ’,’, ‘!’ and ‘?’ as separators.

## Route /tag/*{tagName}* (10 Points)

This route should show all images containing the tag with *tagName* name. List only the latest 100 images.

## Route /profile/*{username}* (10 Points)

This route should show information about the user with the provided *username*. Show his/her latest 100 images. Visible to authorized users only.

## Add administration (10 Points)

If the user is an administrator, he/she should be able to edit or delete images. Add such functionally to the / and profile route. Additionally, add administration routes /admins/all and admins/add where administrators can add other users as administrators too.

## Add handles (20 Points)

Besides tags, Instagram allows user handles. They start with @ and allow one user to mention another by his/her username. Every time an image description contains a handle, the image must appear in the profile of the specified user. For example an image by user *BaiIvan* with description “Sup, @Pesho and @Gosho! Have you seen the latest #BlizzCon?” should be shown in three profiles – ***BaiIvan****,* ***Pesho*** and ***Gosho****.* Additionally, the image should appear in the ***BlizzCon*** tag.

## Add likes and views (10 Points)

Add views counter on every image. It should be incremented every time an image is listed. Show the total number of views for each image. Add option for authorized users to like an image and show the total number of likes. If the users liked an image, they should have the choice to dislike it.

**OTHER REQUIREMENTS**

* Use Node.js as a web server
* Use MongoDB as a database storage
* Use Express.js as a routing framework
* Follow the standard - <https://github.com/feross/standard>
* You may use whatever frameworks you like