Lab 1: NodeJS mini CMS development

Abstract

In this lab, you need to develop a small CMS based on knowledge you have learned from “**Learn and Understand NodeJS**” course.

You need to use all skills you gained from the course, implement it to present your abilities and help the trainer to understand your experiences.

Required Tech

* UI: Apply bootstrap to support responsive
* Database: MongoDB or SQL Server
* FW: Express JS or Sails JS
* Can use: Jade, ReactJS, VueS for binding/rendering
* Host on NodeJS

Required architecture

* **SOLID principal is applied every where**
* **Decoupling/Separation of concerns is mandatory**

Requirement

To complete the CMS, you need the following requirements:

1. CRUD Articles, Categories.
2. Category can be a tree
3. Each article has a sample image for thumb, title, short content, detail content, tags, author/source, publish status, visible status, view count.
4. Home page displays: Docked articles, New articles, Hot articles, Most viewed Articles, Category as menu OR tree.
5. Click on a category: show its Articles by grid or list and pagging, order by latest first.
6. Details page shows: content of the article, its tags, related articles, creation time.
7. Click on a tag: show list of articles related to the tag and pagging, order by latest first.
8. Backend: Need to be authenticated before able to CRUD, Only create article on leaf category, Able to create Article when standing on every leaf.
9. Editor: TinyMCE, WYSWYG or similar.
10. Expose API for other systems:
    * Category API with: ID, Parent Id, Title.
    * Article API with: ID, Category Id, Title, Short Content.
    * Detail Article API: Detail content, tags, author, view count.
    * API need to be secured by secret key, allow multiple secret keys to provide content for different partners
    * Use swagger to see and test API.

Enum Statuses

**Publish statuses**: Draft, Published, Deleted.

**Visible statuses**: Normal, Hot, Docked

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