

Express.js Retake – Mish-Mash

Exam rules:

- You have 6 hours – from 10:00 to 16:00
- 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://judge.softuni.bg/Contests/1157/ExpressJS-28-Aug-2018-Retake>
- 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**
- You are required to edit the provided HTML to make it functional and may extend it as needed.

Application Overview

Get familiar with the provided **HTML & CSS** and create an application for media channels, like YouTube, with the difference that everything is mashed up like Mish-Mash. You have been tasked to implement this application by the **Indiaver** organization. There are several requirements you must follow in the implementation. Below, you will see, how the application should behave, if implemented correctly.

1. Database Models

The **Database** of the **Mish-Mash** application needs to support **2 entities**:

User

- Has a **Username**
- Has a **Password**
- Has an **Email**
- Has **Followed Channels** – a collection of **Channels**.
- Has a **Role** – can be one of the following values ("**User**", "**Admin**")

Channel

- Has a **Name**
- Has a **Description**
- Has a **Type** – can be one of the following values ("**Game**", "**Motivation**", "**Lessons**", "**Radio**", "**Other**").
- Has **Tags** – a collection of **Strings**.
- Has **Followers** – a collection of **Users**.

Implement the entities with the **correct datatypes**.

2. Application Pages

Guest Pages

These are the **pages** and **functionalities**, accessible by **Guests** (**logged out** users).

Index Page (logged out user)

Mish Mash Home Login Register

Welcome to Mish-Mash Media Channels

[Login](#) if you have an account.
[Register](#) if you don't.

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Login Page (logged out user)

Mish Mash Home Login Register

Login

Username

Username...

Password

Password...

Login

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Register Page (logged out user)

Mish Mash Home Login Register

Register

Username

Username...

Password

Password...

Confirm Password

Confirm Password...

Email

Email...

Register

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User Pages

These are the **templates** and **functionalities**, accessible by **Users** (logged in users with **Role - User**).

Logged In Index Page (logged in user)

NOTE: As you can see the **elements** are **aligned** to the **left**, regardless of their count. The **maximum count** is **5 per row**, however they are **always aligned** to the **left**.

First

Mish Mash Home My Channels Logout

Welcome, {username}!

Your channels

SoftUni

Lesson Channel

10000 Following

Following

SoftUni

Lesson Channel

10000 Following

Following

Suggested

Markiplier

Game Channel

4500 Following

Follow Details

Gary's Channel

Motivational Channel

2200 Following

Follow Details

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Second

10000 Following

Following

10000 Following

Following

Suggested

Markiplier

Game Channel

4500 Following

Follow Details

Gary's Channel

Motivational Channel

2200 Following

Follow Details

See Other

Markiplier

Game Channel

4500 Following

Follow Details

Gary's Channel

Motivational Channel

2200 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

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Third

4500 Following

Follow Details

2200 Following

Follow Details

See Other

Markiplier

Game Channel

4500 Following

Follow Details

Gary's Channel

Motivational Channel

2200 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

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Channel Details (logged in user)

Mish MashHomeMy ChannelsLogout

Channel: SoftUni

Type: Lessons

Followers: 10000

Tags

Learning, IT, Lessons, Soft, SoftUni, Study, School, University, Software

Description

Standing at the top of educational centers, SoftUni is the best place at which you can start your career in the IT sector...

Back

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My Channels Page (logged in user)

Mish MashHomeMy ChannelsLogout

Following

#	Channel	Type	Followers	Actions
1	SoftUni	Lessons	10000	<div>UnfollowDetails</div>
2	Markiplier	Game	45000	<div>UnfollowDetails</div>

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1 new notification

Admin Pages

These are the **templates** and **functionalities**, accessible by **Admins** (logged in users with **Role - Admin**).

Admin Index Page (logged in admin)

First

Mish MashHomeMy ChannelsCreate ChannelLogout

Welcome, Admin-{username}!

Your channels

SoftUni

Lesson Channel

10000 Following

Following

SoftUni

Lesson Channel

10000 Following

Following

Suggested

Markiplier

Game Channel

4500 Following

FollowDetails

Gary's Channel

Motivational Channel

2200 Following

FollowDetails

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Second

10000 FollowingFollowing

10000 FollowingFollowing

Suggested

Markiplier

Game Channel

4500 Following

FollowDetails

Gary's Channel

Motivational Channel

2200 Following

FollowDetails

See Other

Markiplier

Game Channel

4500 Following

FollowDetails

Gary's Channel

Motivational Channel

2200 Following

FollowDetails

Markiplier

Game Channel

4500 Following

FollowDetails

Markiplier

Game Channel

4500 Following

FollowDetails

Markiplier

Game Channel

4500 Following

FollowDetails

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Third

4500 Following

Follow Details

2200 Following

Follow Details

See Other

Markiplier

Game Channel

4500 Following

Follow Details

Gary's Channel

Motivational Channel

2200 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

Markiplier

Game Channel

4500 Following

Follow Details

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Channel Create Admin Page (logged in admin)

Mish Mash Home My Channels Create Channel Logout

Create Channel

Name

Description

Tags

Channel Type

☐ Game

☐ Motivation

☐ Lessons

☐ Radio

☒ Other

Create

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Some of the templates have been given to you in the application skeleton, but the others will be for you to implement, so make sure you implement them correctly. You can use the given ones as helpers.

3. Functional Requirements

The **Functionality Requirements** describe the functionality that the **Application** must support.

The **application** should provide **Guest** (not logged in) users with the functionality to **login**, **register** and **view** the **Index** page.

The **application** should provide **Users** (logged in) with the functionality to **logout**, and **view all channels**, and **follow / unfollow** a **Channel**, and **view details** about a **Channel**.

The **application** should provide **Admins** (logged in, with **role - Admin**) with the functionality to **logout**, and **view all channels**, and **follow / unfollow** a **Channel**, and **view details** about a **Channel**, **create** a **Channel**.

When you register a new **User**, it should be assigned with a **role – User**.

Users

Users can **follow** or **unfollow Channels**. If a **Channel** is **NOT followed**, it should be represented on the **Index page** as a rectangular element, which holds **2 buttons** at its bottom – **[Follow]** and **[Details]**.

- Upon clicking the **[Follow]** button, the **Channel** should be added to the **Followed Channels** of the **current user**.
- Upon clicking the **[Details]** button, the **current user** should be **redirected** to the **Channel's Details Page**.

If a **Channel** is **followed**, it should be represented on the **Index page** as a rectangular element, which holds a **simple text** at its bottom – **“Following”**, with no **functionality** behind it.

Channels

There are **3 sections** on the **Index page**:

- **Your Channels**
- **Suggested**
- **See Other**

The **Your Channels** section holds all of the current user's **Followed Channels**. If there are **no such Channels**, it should just be left empty.

The **Suggested** section holds any **Channels**, which have at least **1 common tag** with **one** of the **current user's Followed Channels**.

The **See Other** section holds all **Channels**, which are **NOT included** in the **Your Channels** and **Suggested** sections.

4. Security Requirements

The **Security Requirements** are mainly access requirements. Configurations about which users can access specific functionalities and pages.

- **Guest** (not logged in) users can access **Index** page and functionality.
- **Guest** (not logged in) users can access **Login** page and functionality.
- **Guest** (not logged in) users can access **Register** page and functionality.
- **Users** (logged in) can access **User LoggedIn Index** page and functionality.
- **Users** (logged in) can access **User Channel Details** page and functionality.
- **Users** (logged in) can access the **My Channels** functionality.
- **Users** (logged in) can access the **Channel Follow** functionality.
- **Users** (logged in) can access the **Channel Unfollow** functionality.
- **Users** (logged in) can access **Logout** functionality.
- **Admins** (logged in) can access **every functionality** a **normal** logged in **User** can.
- **Admins** (logged in) can access **Admin LoggedIn Index** page and functionality.
- **Admins** (logged in) can access the **Channel Create** page and functionality.