# Exercise: Source Control Systems

# Prodavachnik SPA

For your current task, you will work on a simple web application for personal ads. There are several steps that need to be performed in order and committed to a central repository. Each task is split into three sections – HTML & CSS, front-end code and back-end code. Distribute the tasks among your teammates and work towards the end goal. Note that each team member **MUST** **have** **at least one** **commit** to the repo!

## Overview

The following table contains and over of all tasks. You will find details about each task further.

|  |  |  |  |
| --- | --- | --- | --- |
| **Notes** | **HTML+CSS** | **Front-end** | **Back-end** |
| master | Document base  Login section  Register section | Navigation (view switching) |  |
| master | Create CSS  Add element classes | Login request  Register request  Session storage | Users collection  Login endpoint  Register endpoint |
| master | Adverts section | Load ads request  API key constants + change | Advert collection  Load ads endpoint |
| Branch | Notification section  User greeting | AJAX notifications  User in session  Display user greeting |  |
| Branch | Create ad section  Edit ad section  Ad actions in list | Create ad request  Delete ad request  Edit ad request  Ad actions in list | User info endpoint  Create ad endpoint  Edit ad endpoint  Delete ad endpoint |
| Branch | Details section  Ad actions in list | Include ad description  Include ad image  Load single ad request  Ad actions in list | Include ad description to collection  Include ad image to collection  Load single ad endpoint |
| Cleanup and commit to master | Add ad description, image to create, edit sections  Merge actions | Add notifications and error handling to create, edit, delete  Add description, image to create and edit | Add description, image to ad create/edit endpoints |

|  |
| --- |
| **The assignment is split into stages and each stage has different tasks. You need to complete all tasks and resolve all conflicts in a stage before continuing the next stage. Once the stage is completed, all team member should pull the changes from the master of the repo.** |

## Document base

At this stage, you only have an HTML shell and two empty script files from which to begin your work. After completion, you will have the base content for the views of your app and a functioning view switcher.

At the end of this stage, your files should be identical to the ones in folder **1. Stage1**. After all conflicts are resolved, all team members should pull the changes from the master before continuing to the next stage.

## Styles and Users

In this task, we will add some code to handle user accounts as well as simple styling to the appearance of the webpage.

At the end of this stage, your files should be identical to the ones in folder **2. Stage2**. After all conflicts are resolved, all team members should pull the changes from the master before continuing to the next stage.

## Load Advertisements

It’s time to add the main functionality to our web application – loading some ads from the server and displaying them to the user. For now, only the administrator can add ads from the backend. Eventually, we’ll add the functionality for users to post their own ads, but in a later task.

At the end of this stage, your files should be identical to the ones in folder **3. Stage3**. After all conflicts are resolved, all team members should pull the changes from the master before continuing to the next stage.

|  |
| --- |
| Our web application has reached a somewhat stable state – users can register and login and advertisements can be displayed. Only administrators may add new ads, but that doesn’t prevent the rest of the features to be used, so we can publish the app open it for business.  When adding any **new features**, we’ll have to put the changes in a separate **branch** first, until they are fully finished and don’t break any existing functionality. Only then can the changes be **pulled into** the **production** branch (master) and published for users. This also allows us to work on several different features that do not affect each other in separate teams at the same time. |

## Brach into Notifications

Right now, there is no personalization, so we’re going to add a little greeting to the header of our app. When browsing around the user cannot tell if the page is loading or if it’s stuck – we need notifications that inform the user the app is loading or when an action completed successfully or an error occurred. We’ll do all of that in a separate branch, while the rest of the app is published and operational.

## Branch into Create-Edit-Ads

It’s not good business to have only administrators be able to create ads – it places a great burden on our staff. It’s better to provide an interface for users to create and publish their own ads and the ability to edit or delete them when they wish. We’ll do all of that in a separate branch, while the rest of the app is published and operational.

## Branch into Detailed-View

It would be great if we can provide a little more detail to ads, to make them more interesting for shoppers. We’ll add a detailed view for each ad where a short description and a custom picture is visible. We’ll do all of that in a separate branch, while the rest of the app is published and operational.

## Cleanup and merge into Master

It’s likely the three features we developed in branches may conflict with each other – it’s time to pull them into the master one by one and resolve any merge conflicts that have been created.

At the end of this stage, your files should be identical to the ones in folder **7. Final**.

# Submitting your work

You have until **18. July** to submit a **link** to your GitHub repository for evaluation. Your commit history will be reviewed and all team members need to have an equal share of commits made to the repo. Any users who have not contributed will be **disqualified** (the other team members will carry on as normal).