A Problem Domain

I have got a good experience during a coding process. Along the implementation I realised what I do not have a clear understanding of the problem domain and I need to work with unfamiliar libraries and constructs. Even additional research on each individual problem didn’t bring an ideal result for my project as almost every problem had several different solutions and it wasn’t easy to choose the right one because of the lack of experience. At the end of the development stage I could clearly understand the problem domain and if I would need to make another similar system or to work on another version of the current, I would build it in a better and more efficient way. I would like to repeat my words what it was a great experience as I had chance to learn on my own mistakes.

List of the problems and solutions:

1. **Materialize (HTML/CSS/JS) framework is used in the basement of the website what is providing some components and plugins. It gave me a chance to build a website faster, but was causing problems when I had to integrate my own elements or when I had to change the elements provided by the framework. I have noticed what Materialize framework is a quite young project and there are almost no any tutorials and information about it online. Some related problems I had to deal with are documented below:**

* ***Sliding gallery wasn’t taking the rest height of the screen after the navigation bar. It was working fine on large screens and had a broken output on small screens.***

**Materialize framework has three screen sizes (Mobile Devices <= 600px, Tablet Devices <= 992px, Desktop Devices > 992px) to help with building responsive designs. The height of the navigation bar is different for each screen size and to programmatically fit the sliding gallery into the entire screen height I had to add some code what was getting the height of the navigation bar after the page was loaded and pass that value to the sliding gallery plugin for a further calculation of the height required for the sliding gallery.**

* ***The solution of the problem above caused another problem. Plugin loading speed wasn’t fast enough and it was giving a confusing output on slow internet connections.***

**Problem was solved by adding a preloader what is displayed until the plugin is completely loaded on a page.**

* ***HTML forms input elements, loaded with AJAX, weren’t recognising their values what were loaded as well. That input elements were working as expected after they were focused.***

**Problem was solved by programmatically focusing/ blurring all the form elements and scrolling a page to the top. That was giving a feeling what page is loaded as expected.**

* ***Materialbox plugin of the Materialize framework wasn’t working as expected and was causing some internal library errors.***

**Problem was solved after some testing of plugin elements. A data-cation attribute of img tag was a reason of the problem when it contained an empty string as a value. That value was dynamically added from a database and I had to replace empty value with a whitespace.**